



Annual Report of the

**FEDERAL
SECURITY
AGENCY**

1954

HD 7123 v

The Annual Report of the Federal Security Agency contains the Administrator's report and the reports of all the Agency's constituent organizations. In addition, the following reports are issued as separate reprints:

THE ADMINISTRATOR'S REPORT
SOCIAL SECURITY ADMINISTRATION
PUBLIC HEALTH SERVICE
OFFICE OF EDUCATION
FOOD AND DRUG ADMINISTRATION
OFFICE OF VOCATIONAL REHABILITATION
SAINT ELIZABETHS HOSPITAL

Both the consolidated volume and the separate reports are available at nominal cost from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1952

For sale by the Superintendent of Documents, U. S. Government Printing
Office, Washington 25, D. C. - Price 75 cents



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**FEDERAL
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FEDERAL SECURITY AGENCY

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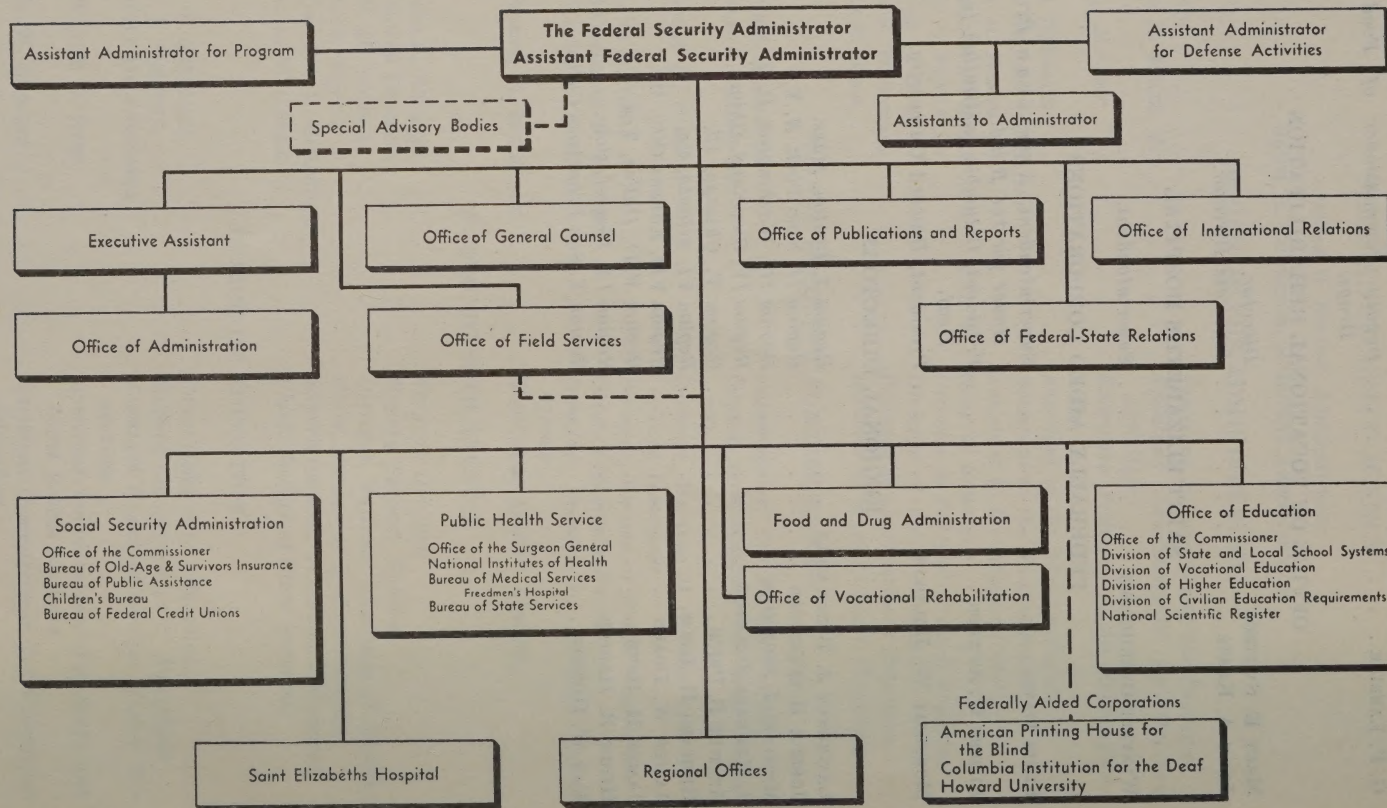
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FEDERAL SECURITY AGENCY



Letter of Transmittal

FEDERAL SECURITY AGENCY,
Washington, D. C., October 30, 1951.

DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Federal Security Agency for the fiscal year ending June 30, 1951.

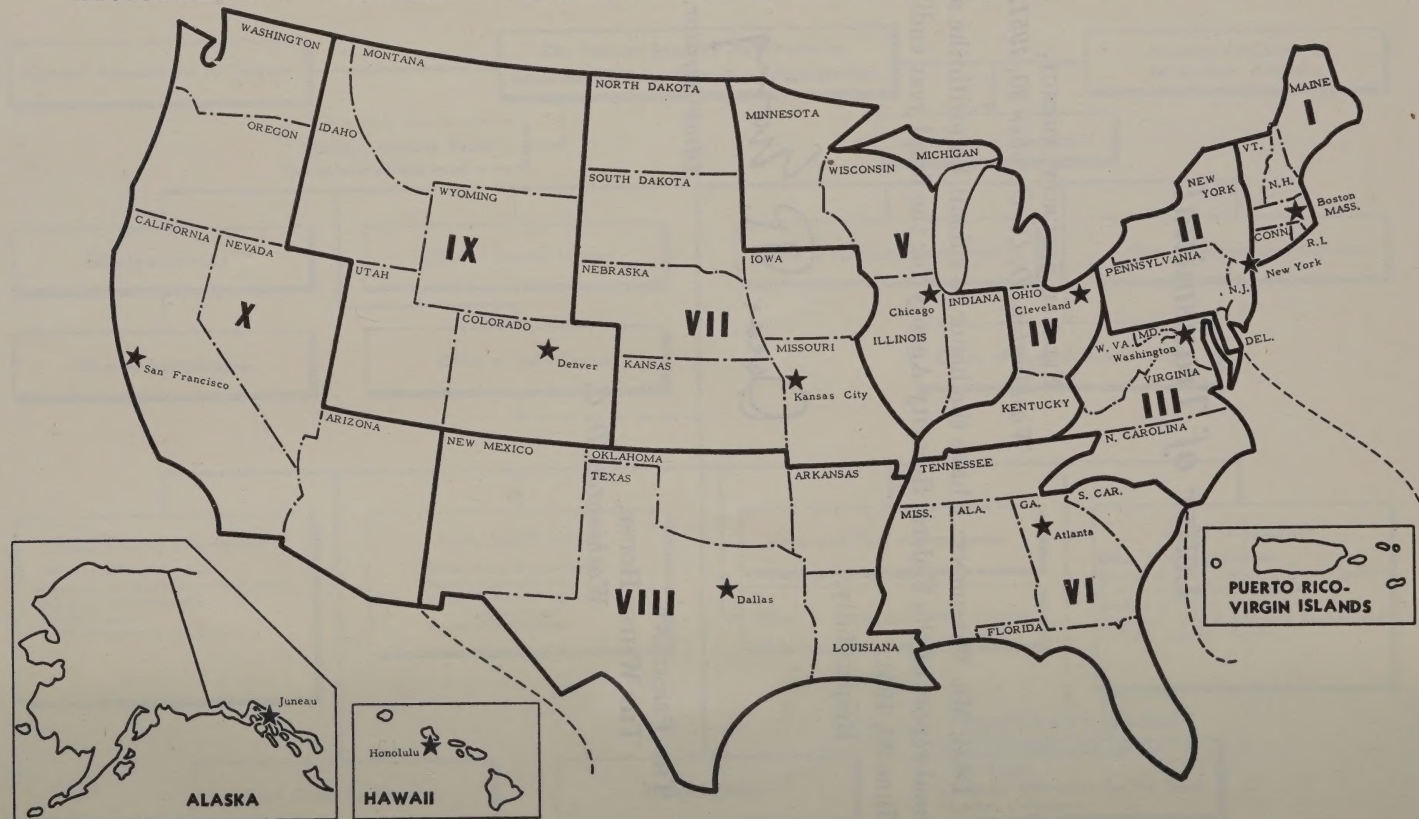
Respectfully,

Oscar R. Ewing

Administrator.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D. C.

REGIONAL AND TERRITORIAL AREAS AND OFFICES OF THE FEDERAL SECURITY AGENCY



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The Administrator's Report

In the 12 months overshadowed by conflict in Korea and by increasing American concern over international conditions, what happened here at home, however important, seemed often to take a minor place in our national thinking. Yet it was clearly necessary for American citizens to appraise their own thoughts and actions on domestic as well as international issues. An essential part of this home-front appraisal was the record of what had—and had not—been accomplished during the year to further public health, education, and social security for the citizens themselves. This annual report of the Federal Security Agency seeks to make such an appraisal from the vantage point of the Federal organization which is largely responsible for conservation of America's human resources. It covers the fiscal year beginning July 1, 1950.

Such a highlighted review of the year's work always tends to emphasize the new and startling and to minimize the ordinary everyday work in social security, in welfare and health and education, that is of supreme importance in our democratic industrial society. The report, therefore, should be read against a background of understanding that the regular work goes on day in and day out.

Old Needs and New Emergencies

As the year opened, it was inevitable that defense mobilization should have an immediate impact in the fields of health, education, and welfare. And it was perhaps equally inevitable that mobilization would be more businesslike in dealing with concrete problems—stockpiling critical medical supplies or disposing of radioactive

wastes—than in handling less tangible but no less urgent demands, such as meeting the crisis in education or forearming ourselves for the civil defense of our cities and our lives. Yet many of these problems were not really new. Congested defense boom towns, for example, desperately needed public health facilities and schools, but we had known for a generation that hundreds of counties desperately need the very facilities that now were labeled “emergency”—and were still lacking.

Meantime, the evidence of general prosperity added new problems. With an unprecedented “peacetime” civilian employment of 61.8 million and with a national income at the rate of \$274.3 billion at the end of the fiscal year, the concept of “economy” was no longer as simple as its dictionary definition. Throughout the year, at any rate, a good many people appeared to be intent on tightening somebody else’s belt.

It was in truth hard to decide where the normal needs of the Nation ended and the special “emergency” needs began. For some, perhaps, it was easy enough to claim that everything involved defense; and most people tried, during the year, to avoid that argument where it did not properly apply. On the other hand, it was just as easy for some to seek frivolous or drastic changes in our social traditions in the identical name of “emergency.” This, too, had to be avoided.

Meantime, we in the United States had come to realize how closely, in less fortunate lands, progress toward democracy was linked with improving health, fostering education, and strengthening the people’s welfare. As the principal channel through which congressional decisions to promote health, education, and security become effective in this country, the Federal Security Agency again, in the year just past, had a considerable share in many of the activities through which the United States participated in this world-wide endeavor.

Long-Term Gains at Home

The Social Security Act amendments, passed in August 1950, represented one of the greatest advances in social legislation since the original Social Security Act was passed 15 years earlier. Under the new law, 10 million more workers, including many of those in farm and domestic employment and many of the urban self-employed, gained old-age and survivors insurance protection. The size of the monthly payment was doubled for those receiving low benefits and increased by 50 percent for those who were getting the maximum benefits. By the end of the year—9 months after it became effective—3 out of 4 American workers were in jobs having this protection. More than 4 million were getting benefits as compared with 2.9 million a year

earlier, largely because of the liberalized "new start" provision affecting older workers.

As a direct result of the changes in the insurance system, the number of aged insurance beneficiaries became greater for the first time than the number receiving old-age assistance. Another result was that, as more aged persons and survivor families became entitled to insurance benefits, State public assistance agencies were able to decrease in most cases, and discontinue entirely for many, the supplementary assistance they were giving those who had had to apply for aid because their needs exceeded the amount of their insurance benefits and other income.

During most of 1951, the monthly number of recipients of old-age assistance and of aid to dependent children moved downward. Despite the continued growth in the aged and child populations, the number of recipients in these two programs will probably continue to diminish, because of the strengthened insurance system and anticipated full employment. Whether monthly expenditures will decline similarly will depend somewhat on what happens to the cost of living. If it continues to rise, average monthly payments will undoubtedly go up. Moreover, as recipient loads decline, it should be possible for the low-income States also to raise payments sufficiently to include essential items that had previously been omitted from their standards because of inadequate State and local funds.

The 1950 amendments also strengthened other parts of our social security system:

They provided more money for child health and welfare. This was necessary in any event, but in 1951 it served to help some defense "boom towns" cope with the acute pressures on children.

They improved the method of payment for medical expenses of public assistance recipients.

They added a fourth category to the public assistance program—aid to the permanently and totally disabled. This extension of the program received less public notice than might have been anticipated. By this amendment the Federal Government recognized an obligation to help the States provide for those who are in need because disabling accident or illness has destroyed their earning power. By the end of the year about half the States were already taking part in this program, and most of the others were planning to do so.

The 1950 amendments represented long overdue and enduring gains. But there were still gaps in our social security system. One proposal for further improvement was making considerable headway as the year ended. This suggestion would provide up to 60 days' hospitalization, under old-age and survivors insurance, for insured workers aged 65 and over and their dependents and for the families of those who have died. Without competing with private insurance to any

substantial degree, this would give needed protection to some 7 million people without requiring any increase in social security contributions or any drain on the Federal Treasury.

In education, the long-debated principle of Federal aid was put into effect—but only as a defense measure. Companion bills, passed in the fall of 1950, authorized Federal help for building and running schools in communities where Federal activity—a defense plant or military installation, for example—had brought in so many children that schools were swamped.

As against the overcrowding that had become almost chronic in our schools, this was a limited activity. And even in terms of defense needs, the amount of money available made possible no more than a beginning. Under the law, some 708 communities were eligible for emergency aid in school construction. But with \$96½ million appropriated for this purpose during the year, there were only enough funds for grants to the 243 communities with top priority. Even so, this Federal aid would help provide schools for 123,000 children. But it would still leave 430,000 children without adequate school facilities in communities technically eligible for aid.

In health, the year ended with a concrete demonstration of faith in medical science—and in the future. On June 22, President Truman laid the cornerstone of the new Clinical Center of the National Institutes of Health.

Begun in 1948 and preparing to receive its first patients in January 1953, this unique Public Health Service institution, with its challenging combination of hospital and laboratory facilities, will become not only a world center for clinical research but also—in the President's words—"a symbol of what is finest in our way of life."

It will, the President said, "bring life and health to all mankind," and he dedicated it with the hope that it "may serve for many generations as a monument to our desire for human health and happiness in a world at peace."

This hope seemed often to be most real when people were exploring practical problems, as in two great conferences for which the Agency had a particular responsibility during the year. These conferences, dealing with the special problems of youth and of old age, were concerned primarily with the increases in both our child population and our older age group, which are causing a profound and little understood change in our population patterns.

The midcentury White House Conference on Children and Youth, fifth in a series of decennial meetings that began in 1909, aimed to seek out ways of helping develop healthy personalities for our children. This goal was, of course, far more complex than its simple description might imply. And the Conference, in its search, was compelled to range from what children require for their full development to

the contributions that can be made by the family, the church, the school, and other social institutions, and from the education for parenthood and service for children to the blight of racial prejudice, and the hazards of children's fears of atomic attack.

The national Conference on Aging, first of its kind ever called, dealt not only with such critical questions as chronic disease, employment prospects of older workers, and retirement systems but also with the needs of older people for companionship, for being useful, for a sense of "belonging" in community, church, and family.

Health, Education, and Welfare—Tools of Defense

Defense mobilization made more and more demands upon the Agency throughout the year. Starting even before the Communist attack on the Republic of Korea, these demands continued to pile up in all parts of the Agency. How they were handled is described in the chapters of this annual report covering activities of the Agency's constituent units.

What stood out most strikingly was the fact that an Agency explicitly dedicated to civilian pursuits—to matters affecting public health, education, and family security—should be so broadly involved in defense mobilization. This involvement proved, if proof were needed, that national defense in our time spares none and depends on all. Every step in defense mobilization creates its own highly specialized demands upon health, education, and welfare services, the scope of which was clearly defined by the Director of Defense Mobilization in his delegation of certain defense responsibilities to the Federal Security Agency.

Civil Defense.—The range of problems on which the Federal Security Agency contributed to civil defense planning during 1951 stems from the obvious fact that an armed attack on our country could create desperate health and welfare problems. During the year, the Public Health Service organized epidemic teams and an improved disease-reporting system to cope with the dangers of biological or chemical warfare, and the Food and Drug Administration developed contamination detection teams and took other action for protection against atomic, biological, and chemical warfare. Public Health Service task forces helped to develop the health aspects of civil defense instructions and manuals; and the Social Security Administration gave similar technical assistance in welfare planning, including measures to protect children whom another war might engulf.

Defense Training.—Early in 1951 the Federal Security Agency foresaw the defense-training demands which would be made on the Na-

tion's public school systems. Requests for help poured in as one industry after another signed defense contracts. Before the end of the year the training costs borne by States and localities were accelerating rapidly, and it was quite clear that these costs would continue to go up. Plans for the Federal Government to share in this defense burden were drawn up by the Office of Education, which has had more than 30 years of experience in vocational education. At year's end, blueprints were ready. They could not be translated into action, however, until funds should be made available.

Defense Manpower.—As a member of the Manpower Policy Committee, the Administrator represented the Agency's concern, not only for defense training but also for the rehabilitation of handicapped workers and for the employment of older workers. During 1951 many pilot projects added new proof that these two groups offer a dependable supply of workers and demonstrated how community effort can tap these sources of manpower. In Knoxville, for example, all community facilities were pooled in a city-wide committee to find potential workers among the disabled and rehabilitate them for critical defense jobs. All over the country, rehabilitation agencies intensified their efforts to obtain full community participation in campaigns to increase the labor supply by preparing and placing more handicapped men and women in defense work.

All told, more than 66,000 handicapped men and women were prepared for work and placed in self-supporting jobs during the year—a record high and an increase of 14 percent over 1950. They are working in many occupations in which there are shortages—260 became engineers; 1,400 entered the field of medicine and related work in hospitals, laboratories, and similar facilities; 1,400 became school teachers; 10,000 entered skilled trades, including machinists, lathe operators, and electricians; and 5,900 are farmers or engaged in agriculture. In relieving the burden and care of these people in their homes, uncounted other workers were released for service in the Nation's defense effort. More than 10 percent of the rehabilitants added to the labor force were removed from the public assistance rolls, thereby reducing the load of dependency on public funds.

Meantime, at least as many as 1,200,000 people 65 and over were in paid jobs by January 1951, a rise of about 40 percent over the year before. Yet the backlog of potential manpower in both groups was still in the millions.

During the summer the National Scientific Register was established in the Office of Education as a special project of the National Security Resources Board. Its primary responsibility is to develop a selective analytical inventory of the Nation's trained scientists and technologists.

Defense "Boom Towns."—During 1951 the Federal Security Agency had many calls for advice and assistance from communities where increasing defense activity, military or industrial, had brought in more people than the town could absorb. They sought help in public health, schools, welfare, community recreation, and special services for children, including day-care centers for those whose mothers are employed. Through its regional offices—and with its background of long experience—the Agency was able to predict and appraise the crises that beset these mushrooming defense areas. In 1951 it made especially important surveys in South Carolina and Kentucky. In this connection, the Agency also served as a member of the Critical Areas Committee.

Materials for Civilian Use.—As one of the first agencies designated by the Defense Production Administration to represent a major segment of the civilian economy, the Federal Security Agency was given responsibility for determining the extent of need for critical materials required in the construction of schools, colleges, libraries, hospitals, and health facilities. It was also assigned similar responsibility in respect to critical materials needed for equipment and supplies in the entire fields of education, health, welfare, and recreation. The Controlled Materials Plan was established at the year's end, and under it the Federal Security Agency was given full responsibility for making detailed allocations of steel, copper, and aluminum to the most urgently needed schools and hospitals. Although these responsibilities were carried by the War Production Board during World War II, by 1951 the functions of the Federal Security Agency included school and hospital construction programs, so that it was clearly logical to delegate to it responsibility for allocating scarce materials for building new schools and hospitals.

In addition to controlled materials, the Agency has continuing responsibilities for certain other kinds of materials. These, too, were barometers of emergency pressure during 1951. The Food and Drug Administration stepped up its activities as it foresaw the difficulties which defense mobilization might cause in the food and drug industries. The wearing out of irreplaceable equipment, the overcrowding of storage space, the substitution of makeshift packaging materials, the loss of skilled workers—these are hazards that beset manufacturers in such times. And high prices and supply shortages always tempt unscrupulous operators to capitalize on emergency. The Food and Drug Administration on a number of occasions put a halt to such practices before they could undermine the integrity of the country's food and drug supplies.

Through the Public Health Service, the Federal Security Agency has similar responsibilities for assuring the safety and potency of

commercial vaccines, serums, and other biologics. And the Public Health Service itself is the sole source of some medical supplies, including certain serums and yellow fever vaccine—all of which become critically essential in time of emergency.

Medical Research.—One of the most heartening parts of the defense picture throughout the year was the unhalting effort of medical research to cope with problems raised by new industries or by the danger of a military attack upon us. Except for the Department of Defense, the Public Health Service is the only Federal organization equipped to deal with all the medical, biological, and engineering research entailed in problems of human health. As the Government's major resource for comprehensive health protection, it has for years engaged in extensive studies bearing upon defense, ranging from Arctic health problems to water pollution.

During 1951, nearly every major defense agency turned to the Public Health Service for help.

At the request of the Atomic Energy Commission, the National Institutes of Health undertook research on radioactive wastes—including their safe disposal and the decontamination of water supplies.

At the joint request of the Atomic Energy Commission and the Department of Defense, the Public Health Service enlisted its own research units and those of universities and medical schools in an investigation of how much exposure to radiation the human body can stand and how radiation damages take place.

The Department of Defense, the Civil Defense Administration, and the National Research Council joined in a request to the Service for an extensive research program on "blood bank" problems. Finding new answers to these problems might mean the difference between life and death for tens of thousands of civilians in an atomic attack. How to store enough blood; how to store it over long periods; how to develop generally useful substitutes—these were some of the questions for which the Public Health Service and other centers of medical research were seeking answers. And the Food and Drug Administration, with its control over new drugs, has the important task of evaluating the safety of the substitutes before they can be distributed under commercial marketing practices.

But meantime an emergency treatment for shock had already been developed, based on research carried on in Public Health Service laboratories and, as the year ended, was in process of clinical testing. Simple and effective, it involves nothing more complicated than drinking plenty of water to which has been added a little salt and a little baking soda—yet it may save countless lives.

Thus the Federal Government's essential peacetime services for health, education, and security—which had been adapted to wartime

needs in the 1940's—once again were utilized in this period of emergency. But it was inevitable that the rate of progress should be uneven. Medical research gave us quick new answers to specific health hazards, for example, but the country as a whole was slow to build up community health services that could protect public health in many defense areas. The normal time-lag between theory and application was too long for an abnormal year. One of our biggest problems—in the Federal Security Agency and throughout the land—was how to cut it short. Human lives depended on our ability to solve that problem.

Nevertheless, despite delay and error, despite controversy and perplexity, one basic fact stood out above all others: The American people recognized that their health, their education, and their economic security—along with their liberty—were the very things which our whole defense effort was intended to protect; for these are the essentials of the American way of life.

Consumer Protection.—In a time of scarcity and high prices, it was more than ever necessary to protect consumers against dangerous, filthy, or otherwise adulterated products. In such a time, ethical manufacturers are beset by a fringe of less responsible producers whose only desire appears to be to get while the getting is good. For this reason the Food and Drug Administration's work became more essential than ever, and the Administration was active in many fields throughout the year. In one respect, however, it was unable to fulfill adequately its legal responsibility; this was in the enforcement of the oleomargarine statute. Lack of funds prevented the Administration from making full application of the legal requirements; under such circumstances the law will continue to be hardly more than a declaration of congressional intent.

Meeting Basic Needs—A World-Wide Problem

More than in any past year, American methods of public service in health, education, and welfare became an article of export, a tool of foreign policy. This was, of course, not new; in the early years of the century, the Public Health Service had helped to organize and staff the Pan American Sanitary Bureau. What was new now was the extent and variety of these demands.

On July 1, 1950, the Governments of Canada and the United States inaugurated a joint quarantine procedure for ships and aircraft from other countries. A money-saving and labor-saving arrangement, it was also a noteworthy evidence that national boundaries are not necessarily a barrier to pooling experience and common sense.

The Agency's participation in international affairs was channeled either through United Nations projects or through our expanding United States programs of foreign aid. These activities have been on the upswing ever since the end of World War II and expanded greatly with the Technical Assistance Programs and the vast activities of the Economic Cooperation Administration.

Calls for Agency cooperation came from the Departments of State and of Defense, from the Economic Cooperation Administration, from individual foreign governments, from the United Nations and its specialized agencies. Substantially all the Agency's constituent units were drawn into this work, with our Office of International Relations serving as clearinghouse and coordinator both for the American experts assigned to foreign missions and also for the foreign professional people coming to the United States to get training in health, education, and welfare.

By the end of the year, nearly 100 Agency-sponsored experts were in the field as members of various United States missions—in Bolivia, Brazil, Burma, Chile, Costa Rica, Cuba, El Salvador, Egypt, Greece, Haiti, India, Indochina, Indonesia, Iran, Lebanon, Liberia, Mexico, Panama, Peru, Thailand, Turkey, and West Africa. They were doctors, dentists, public health administrators, specialists in malaria and other tropical diseases, nurses and nurse-midwives, sanitarians and sanitary engineers, pharmacists, health educators, specialists in maternal and child health and child welfare, experts on vocational training, vocational education, literacy, social insurance, and vital statistics. Some of these American specialists were serving as individual consultants to the governments of the countries requesting assistance; others were working as members of a team—on programs of rural development, as in Iran; or in a public health mission, as in Liberia. Especially gratifying was the increased interest in development of community welfare services in other lands; at the request of the Egyptian Government, for example, the Social Security Administration began working out a program for development of community welfare centers in Egypt.

Incoming visitors from other countries—exchange teachers, professional "trainees" in health and welfare, public leaders on official tours—far outnumbered the American experts on foreign assignments. The exchange of persons programs have developed very markedly during the year. Especially to be noted was the expansion of the exchange of teachers between this country and other countries. Over the past few years, the Federal Security Agency has had responsibilities of one kind or another for several thousand foreign specialists drawn to the United States by their interest in improving health, education, or welfare services in their own lands. During 1951, for

example, our Communicable Disease Center at Atlanta, Georgia, enrolled its five hundredth foreign expert, who represented the seventy-first country to send trainees to this single part of the Federal Security Agency; he came from Pakistan.

Enough—And on Time?

Both internal mobilization and international developments were facets of the "three-quarters peace" in which we lived. But the biggest implication of this uneasy time was one which still raised more questions than we could answer. Put in its most elemental terms, it was this: How long could we wait? How long could we postpone correcting the flaws in our domestic structure in order to concentrate on the urgent needs of the moment? No one in his right mind would deny that we must be strong in the face of Soviet aggressiveness. No one would deny that military and industrial demands must be met quickly, even if this meant that we were compelled to put off doing the things we needed to do in protecting our health, education, and welfare. But for how long? Is there not a danger that, if emergency lasts 5 years, or 10, or a generation, these very postponements would weaken our military and industrial strength—and thereby endanger our national safety?

The Director of Defense Mobilization pointed out in his first report, in the spring of 1951, that "the men and women who will be needed in the future * * * are the children now in primary and secondary schools. In view of the long-range character of the defense program, it is important that we develop further the present American system of local, State, and Federal cooperation for meeting our educational responsibilities. * * * We must also continue the education and training of skilled and scientific personnel." This was, if anything, an understatement. Yet, in spite of heroic efforts, in spite of Federal grants to defense areas, American education was losing ground.

More children and young people were crowding into school than ever before—nearly a million more than the previous year. With the crest of the "baby boom" of war years due to hit the schools in 1957-58, comparable increases are ahead, at least until 1960, when the school population is expected to reach 37 million.

From kindergarten to college, the schools were never less prepared to house them, much less to give them what education today is potentially able to offer. In May 1951, the President of the National Education Association said bluntly that financial neglect had reduced the United States school system to the worst condition in its history. This

charge reiterated what the Office of Education had been predicting since the close of World War II—and even before.

For colleges, universities, and graduate schools, the desperate shortage of funds was aggravated by uncertainties and competing manpower demands which obscured their future. One important emergency measure, providing opportunity for postponement of military service for able college students, was put into effect as part of the Selective Service System under an Executive Order of the President in the spring of 1951. Some 339,000 young men took the examination held under this arrangement—the largest number in history ever to enter upon such a test. In June, the age requirement for Selective Service was set at 18½ years. It was hard to predict what effect these changes—together with the induction calls of intervening months—would have on fall enrollments.

Basing its estimates on the best information available, the Office of Education looked for a total enrollment of 2,045,000 in institutions of higher education in the fall of 1951. This would represent an over-all falling off of 252,000 since the previous year, with a decrease in women students from 727,000 in 1950 to 705,000 expected in 1951, and a drop in men students from 1,570,000 to 1,340,000 within the year.

These probabilities, combined with the known needs for maintaining and strengthening our technical and professional skills, left no question about the dilemma of higher education. Many criticisms were leveled at Selective Service's examination and postponement plan—as at every other proposal to meet the problem. Of current objections the most substantial appeared to be the contention that this new arrangement discriminated in favor of those who could afford a college education.

The Federal Security Agency continued throughout the year to support proposals to provide public scholarships, with Federal backing, to bring educational opportunity within reach of all able young people. In one form or another this issue had been discussed pro and con ever since World War II. Legislation for Federal aid to medical education, for example, has been before Congress several times. But in 1951, as in preceding years, no action was taken.

Meantime, the Social Security Act amendments gave the States increased resources with which they could provide more health and social services for children, including help for well children from doctors, nurses, and other health workers, treatment for more children with epilepsy, cerebral palsy, rheumatic fever, and other crippling conditions, and more child welfare service for children who are neglected, delinquent, or who need care outside their own homes. The increased child population, previously reported, calls for the expansion of these programs as well as the expansion of our school

system. Services to more children will depend, of course, on the appropriation of additional funds. The impact of defense mobilization on towns and cities and on children and young people intensifies the need for moving forward on these basic services.

The Economics of Economy

The economy that begins at home was fostered by the Agency's Bureau of Federal Credit Unions, which provided prudent consumer credit and the means of saving for the more than 2 million working people and their families who in 1951 were members of cooperative credit unions under the Bureau's supervision. During the year, the Bureau found that, by simplifying procedures, it could examine more credit union accounts—a service for which the Credit Unions pay the Bureau—and thereby increase its capacity to become self-sustaining.

That is one kind of clear-cut economy. Another is that of the State-Federal program for vocational rehabilitation. Under this program, the average cost of rehabilitating a disabled person last year was approximately \$457—a one-time expenditure. Experience shows that all those rehabilitated will repay in income taxes in 4 years the entire Federal share of their rehabilitation.

Still another undebatable economy lies in the effective practice of large-scale administrative management. The Federal Security Agency acts on the principle that its stewardship for the taxpayers' money obligates it to exercise the tightest kind of administrative efficiency. Limited appropriations, which had to be spread over a larger area of work, required redoubled efforts toward economy. While some activities had to be eliminated or curtailed, the Agency, through continuing improvements in management, was able, during the year, to do more work with fewer employees and at the same time to effect substantial additional savings. Many projects and much intensive effort contributed to these results—as for example:

In the face of work loads expanding under pressure of new legislation and of defense activities, the Agency had to absorb a reduction of more than 200 positions in average employment on programs financed by direct appropriations, and did so without major damage to its regular programs.

Under an incentive awards program which was vigorously pursued throughout the year, 213 Agency employees received awards totaling \$6,875. As a result of the improvements for which these award winners were responsible, savings within a single year were estimated at more than \$92,000.

Another substantial saving—estimated at \$27,000 for the first year of operation—was made possible by the reorganization of the Office

of Education. Based on recommendations made in a survey by the Public Administration Service, this reorganization was focused on the need to identify and anticipate major educational problems and to develop means of meeting them.

An outstanding example of expanding work loads was the effect of the Social Security Act amendments, passed soon after the beginning of the fiscal year. The Bureau of Old-Age and Survivors Insurance had a 55-percent increase in work load. Through careful advance planning it handled this additional work with an increase of only 20 percent in personnel costs, which was accounted for in part by overtime. Its new job entailed, among other things, the conversion of 3 million monthly benefit payments to higher rates. This major change-over was accomplished without undue delay in handling new applications for benefits from those who, during the same period, had become eligible for the first time as a result of the amendments. With the increase in the claims load, there was some temporary lag in processing and certifying benefit claims; in January of 1951 it was taking an average of 50 days. But by the end of June the lag had been overcome and the average time between filing and certification was only 27 days. The Children's Bureau and the Bureau of Public Assistance were also resourceful in absorbing the increased responsibilities placed upon them by the amendments, though not without some sacrifice of other work.

Conserving manpower was a major concern throughout the Agency. A Public Health Service task force began a survey of its scientific jobs to determine where scientists can be relieved of administrative duties so that more time can be devoted to research. In other constituent units—the Food and Drug Administration, the Office of Vocational Rehabilitation, and Saint Elizabeths Hospital—comparable projects were under way to improve management and conserve manpower.

All these efforts were backstopped by Agency-wide developments initiated by the Office of the Administrator. Federal-State relations were improved by simplifying and expediting grant-in-aid audits and by decentralizing the work relating to merit systems. Regional records and reports were simplified, enabling the Regional Directors to devote more time to Federal-State program matters and defense activities. An increasing volume of records and accounts was handled by tabulating machines; supply systems were reorganized; and the time and space required to maintain inactive records were reduced.

There remained the question of how much economy would cost in the long run. By 1951 failure to weigh some of today's savings against tomorrow's needs had reduced our schools to slow starvation. It still left millions without the means to pay for adequate medical care. It had not yet learned to count the hidden costs of illiteracy, delinquency,

crime, and illness. These are not questions of administration or management. In essence, they are questions of fundamental public understanding and attitudes. And for that reason, they were properly the subject of widespread public discussion throughout the year.

Freedom of Speech in Action

There were times during 1951 when it almost seemed that action would fail to speak more loudly than words. Probably not since the issue that led to the war between the States a century ago had divergent public opinions been debated so loudly. And perhaps never had citizens raised their often discordant voices on so many hot issues at one time.

Yet this behavior led more from strength than from weakness. For what nation not sure of at least a few unquestioned values, not blessed with almost limitless capacities and resources, could afford the exuberance of American self-criticism during 1951? The normal process of democratic discussion and debate was replying in full voice to abnormal stresses. And in this sense discussion and debate were in themselves an essential kind of action, a tooling up of the citizens' determination to shape things to come.

Among unfinished business at the end of the year, the President gave health insurance a high priority. "I still believe," he said, that "it is sound, and that the Nation would be greatly strengthened by its adoption * * * I want to make it clear, however, that I am not clinging to any particular plan. What I want is a good workable plan that will enable all Americans to pay for the medical care they need * * * if the people who have been blocking health insurance for 5 years will come up with a better proposal—or even one that is almost as good—I'll go along with them. I want to get the job done * * * Our objective must be to make the best modern medical care available to more and more people."

Partnership and Progress

These were straws in the wind of progress during 1951—and it was inevitable that there should be inconsistencies. The Federal Security Agency saw some of these inconsistencies at close hand.

The Food and Drug Administration, for example, reported that the fringe industry of medical quacks had tried to embark on a field day in 1951—capitalizing on current fears and anxieties to peddle all the old and some new nostrums. Yet in that same year, the great drug industries of the country were helping to make history in basic medical research.

Along with public agencies and privately supported institutions, the drug industry was a partner in one of the year's great long-range scientific advances—the all-out research program on ACTH and cortisone. The Public Health Service, through its own medical research and its research grants to private institutions, was also a partner in this enterprise, as were universities, foundations, and other private institutions. All told, the intensive work financed by this partnership probably covered every aspect of ACTH-cortisone research, including the acute problems of supply and of raw materials, the search for substitutes, and the investigation of the medical usefulness of these substances in a wide variety of diseases including rheumatic fever, arthritis, congestive heart failure, leukemia, and many others. The Food and Drug Administration participated in this advance through its role in evaluating the safety of these potent new drugs, as a statutory prerequisite to their release for sale, and of policing distribution to prevent the marketing of the drugs by those who had not met safety requirements.

As a concentrated attack upon disease, this great advance, unique in the history of medical research, was very largely due to the fact that the Congress, the scientific world, the industries concerned, and the public all joined in recognizing the promise of these epoch-making weapons in the endless battle against disease. This is the kind of essential cooperation—involving the worker and the businessman, the city and the farm, the scientist and the layman, the public official and the private citizen—that offers the best hope of America and of the world.

Social Security Administration

Social Security Progress and Problems

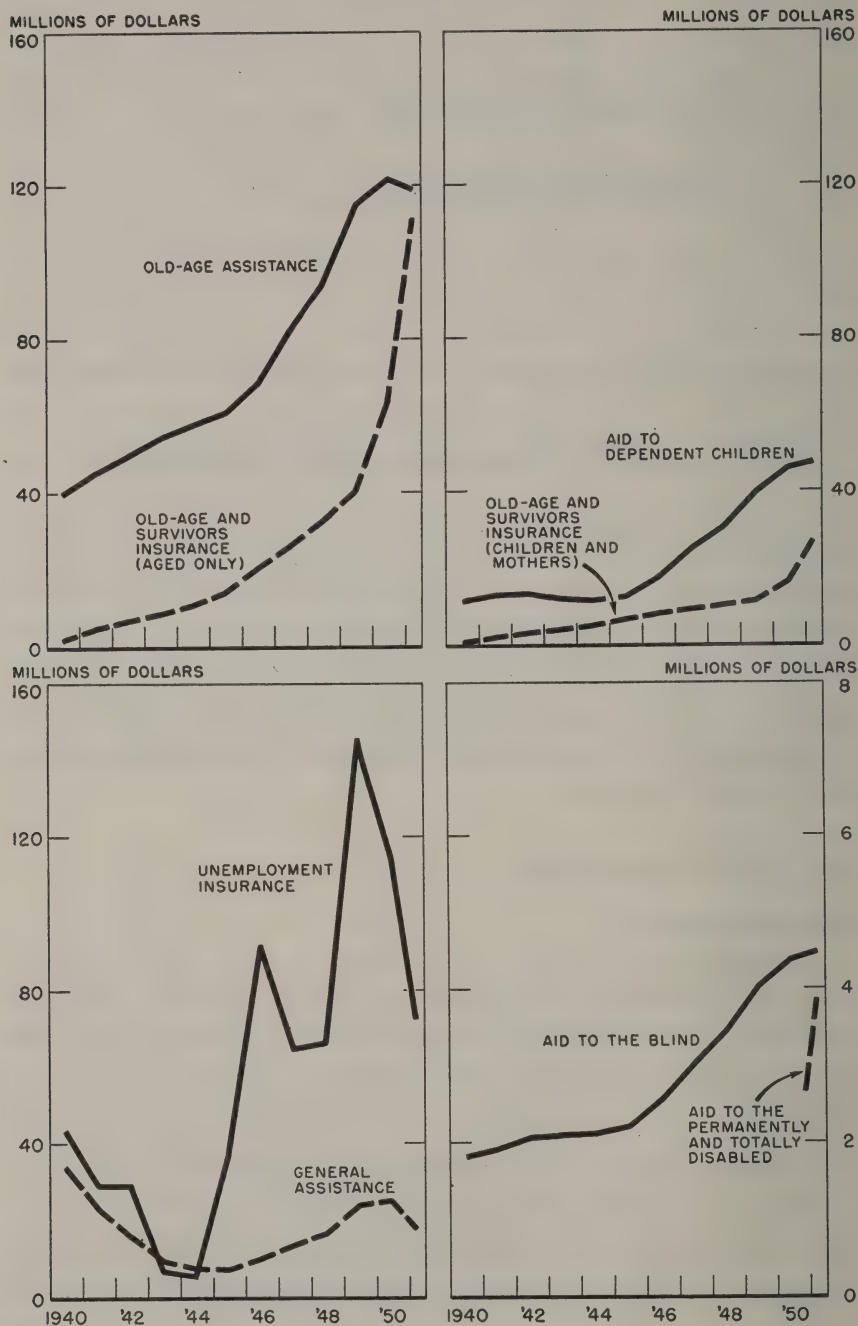
BROAD PUBLIC support of the social security program was demonstrated in the fiscal year 1951 by the overwhelming vote in Congress for the 1950 Social Security Act Amendments, which received Presidential approval August 28, 1950. The amendments represent a major advance toward the long-time goals in social security—reliance on social insurance as the primary income-maintenance program, a strengthened public assistance program to meet need, and increased Federal support for maternal and child health, crippled children, and child welfare programs.

The 1950 Amendments

PROGRAM CHANGES

In extending the coverage of the old-age and survivors insurance system and liberalizing its eligibility and benefit provisions, Congress reaffirmed the principle established in the Social Security Act of 1935 that a contributory system of social insurance with benefits related to earnings and paid as a matter of right shall constitute the basic method of preventing dependency. As of January 1, 1951, about 8 million workers became newly covered under old-age and survivors insurance on a compulsory basis; another 2½ million workers had coverage open to them on an optional basis. The first group included about 5 million self-employed individuals other than farm operators and members of specified professions, about 1 million domestic workers,

Chart 1.—PAYMENTS TO INDIVIDUALS UNDER THE SOCIAL SECURITY ACT



more than half a million regularly employed farm wage workers and two-thirds of a million Federal employees not under the civil service retirement system. The second group, which may be covered through voluntary arrangements, consisted of somewhat less than a million employees of nonprofit organizations and about $1\frac{1}{2}$ million State and local government workers lacking a retirement system of their own. By June 1951, agreements had been signed with 10 States and two interstate instrumentalities, and about 31,000 nonprofit organizations. Almost 700,000 employees of these nonprofit organizations had elected coverage.

At the close of the fiscal year, old-age and survivors insurance covered about 77 percent of the Nation's civilian workers. Another 9 percent were under the separate retirement systems of the Federal Government, State and local governments, and the railroad industry.

The contribution schedule in the amended old-age and survivors insurance program is intended to keep the system self-supporting through employee and employer contributions. The specific authorization to make appropriations from general revenues, if required, was deleted. Effective January 1, 1951, the maximum annual wage for tax and benefit purposes was increased from \$3,000 to \$3,600, in recognition, to a limited degree, of the principle that the tax base should be increased as wage levels rise. As of September 1950, payments to beneficiaries already on the rolls were increased by about 75 percent on the average; benefits were made payable to additional types of beneficiaries; eligibility conditions were liberalized, allowing many more aged person to qualify for benefits; and the ceiling on monthly earnings in covered employment without loss of benefits was raised from \$14.99 to \$50 and eliminated for beneficiaries at age 75.

Broader protection against need was effected through adding to the public assistance provisions a program for aid to the permanently and totally disabled. As of June 1951, such programs had been approved and were operating in 30 States. Other changes enabling the States to meet need more nearly adequately or more flexibly included provision for Federal matching of payments to the needy parent or other relative with whom the dependent child is living, of payments to needy persons who are patients in public medical institutions other than institutions for the tuberculous or the mentally ill, and of payments made by State agencies to suppliers of medical care in behalf of public assistance recipients.

Recognition of the Nation's concern with the welfare of the people living in our island possessions was reflected in the extension to Puerto Rico and the Virgin Islands of old-age and survivors insurance and of Federal aid for four types of public assistance. The three maternal

and child health and child welfare programs had been extended to Puerto Rico in 1940 and to the Virgin Islands in 1947.

Authorizations for grants to the States for maternal and child health, crippled children, and child welfare services were increased from \$22 million to \$41.5 million, with corresponding increases in the flat amounts available to each State. The basis for allotment of the balance in the child welfare grant was changed from total rural population to rural population under 18 years of age. Authorization was provided to use child welfare service funds to pay the cost of returning runaway children under age 16. Cooperation between public and voluntary child welfare agencies was emphasized by the provision that the experience and facilities of voluntary agencies be utilized in the development of public child welfare services.

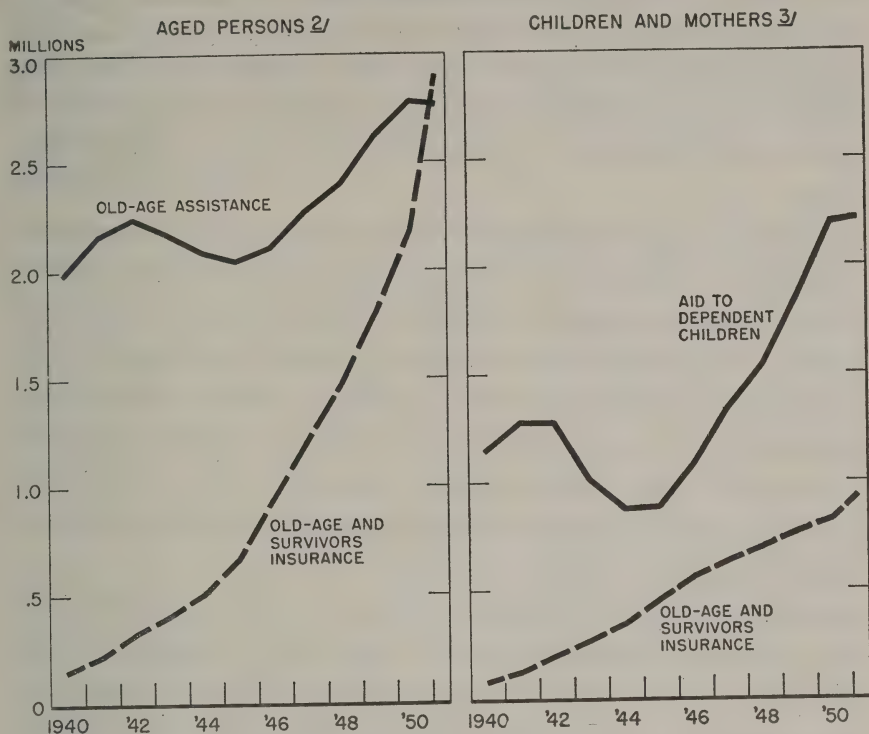
PROGRAM RELATIONSHIPS

One of the immediate effects of the amendments was a shift in the relative size of the two programs providing income to aged persons. By February 1951, more aged persons were on the old-age and survivors insurance rolls than were receiving old-age assistance. This development took place 5 months after the liberalized eligibility and benefit conditions, provided under the revised insurance program, went into effect. By June there were 112 aged persons receiving old-age and survivors insurance for every 100 on old-age assistance.

Another consequence of the amendments was a reduction in assistance expenditures as a result of increased expenditures for old-age and survivors insurance. In September 1950, 279,000 aged recipients and 32,000 aid to dependent children families were receiving assistance to supplement their old-age and survivors insurance benefits because their basic needs exceeded their benefits and other income and resources. In addition to this number, 95,000 aged recipients and 3,700 families who were on the assistance rolls in September 1950 became eligible, for the first time, for insurance benefits under the liberalized eligibility provisions of the insurance program. In most instances the benefits for those newly eligible were relatively low because they were based on substantially lower average monthly wages than were the benefits of those who were insured under the former provisions.

Most of the recipients in these two groups required continued assistance, but in smaller amounts. However, State public assistance agencies were able to discontinue assistance by June 1951 to 44,000 aged recipients and 6,900 families receiving aid to dependent children. The total reduction in assistance payments was roughly \$7 million a month. Additional savings, not reflected in these figures, have undoubtedly resulted from the increase in benefits and in coverage of the insurance program, which made it possible for a larger proportion of new beneficiaries to get along without applying for public assistance.

Chart 2.—AGED PERSONS AND CHILDREN AND MOTHERS RECEIVING PAYMENTS UNDER THE SOCIAL SECURITY ACT ¹



¹ Average monthly number, by years. For old-age and survivors insurance, 1940 data represent beneficiaries at end of December.

² For old-age and survivors insurance, represents all beneficiaries aged 65 and over receiving old-age, wife's or husband's, widow's or widower's, or parent's benefits.

³ For old-age and survivors insurance, represents sum of child and widowed mother beneficiaries; after August 1950, includes about 25,000 wives under age 65 with child beneficiaries in their care. For aid to dependent children, represents children plus 1 adult per family when an adult or adults are included in assistance group.

About a fourth of the State public assistance agencies used the savings in payments to the insurance beneficiaries, and the additional Federal money authorized under the public assistance amendments, to bring assistance payments to all recipients more nearly in line with living costs. Moreover, some agencies were able to rescind or reduce previous cuts in payments necessitated by inadequate State appropriations; other agencies increased their allowance for food or some other requirement for which the amount in the assistance budget had lagged behind rising costs.

Administrative Highlights

PUTTING THE NEW PROGRAM TO WORK

One of the major concerns of the Commissioner and the program bureaus and other parts of the Social Security Administration was to

see that the new provisions went into effect as rapidly and effectively as possible. Recognizing the additional administrative load entailed by the amendments, Congress appropriated money for additional staff in the Bureau of Old-Age and Survivors Insurance and a few additional positions in the Bureau of Public Assistance. In June 1951 the staff of the Social Security Administration totaled 14,821 persons, 6,012 in the departmental and 8,809 in the field, area, and regional offices.

Through advance planning and the use of a variety of management techniques the Bureau of Old-Age and Survivors Insurance was able to swing into action as soon as the amended provisions became law in August. The more than 3 million beneficiaries on the rolls were notified immediately of the increase in benefits and received their September checks, recomputed to the higher amounts, without delay. A claims load that was twice, and at its peak four times, the volume received in 1950 was handled promptly and with only a small increase in personnel. Special effort also was made to acquaint the public in general, and especially the potential beneficiaries, with the new coverage, eligibility, and benefit provisions of the act.

Administrative activities in the Bureau of Public Assistance were focused on developing policy statements to interpret the amendments and on assisting the State agencies to adapt their programs to the new provisions. These changes were discussed with State administrators at a conference in Washington in September 1950 and at regional meetings held during the year. Primary emphasis centered on the amendments which went into effect October 1, particularly the new grant-in-aid program for the permanently and totally disabled, the extension of the assistance programs to Puerto Rico and the Virgin Islands, and Federal participation in payments to vendors of medical care. Planning also went ahead to ensure smooth operation of the amendments that will go into effect at a later date.

To help the States plan effectively for the expansion of maternal and child health and child welfare services contemplated by the amendments, the Children's Bureau held regional conferences with representatives of State health and welfare departments and voluntary agencies. Community planning and citizen responsibility for children's services were emphasized at each conference. The regional meetings were followed by a conference with representatives of national voluntary organizations in the child welfare field. A policy manual for the use of Federal child welfare service funds was issued in April 1951.

Operations of the Bureau of Federal Credit Unions during the year were focused on making the Bureau more nearly self-supporting without impairing its essential services to Federal credit unions. This

aim was accomplished both by increasing the examination fees paid by the Federal credit unions and by continuing attention to management improvement projects. The productivity of Bureau staff was greater than ever before. In addition, as a means of saving staff time, the Bureau utilized and trained volunteers to assist in much of the work involved in organizing new Federal credit unions.

DEFENSE ACTIVITIES

Developments growing out of the Korean war involved the Social Security Administration in new responsibilities. Technical assistance was given the Federal Civil Defense Administration in developing basic policies for emergency welfare services in the event of enemy attack. Staff members of the Social Security Administration served on advisory and technical committees of other Federal agencies in planning programs to assist States and communities in providing post-disaster services to families and children. At the request of the Atomic Energy Commission, surveys were made of the need for health and welfare services, including day care for children, in communities affected by the building of the Paducah and Savannah River atomic energy plants. Under the general authority given the Federal Security Agency by the National Production Authority to act as a "claimant agency" for determining civilian needs in the health, welfare, and educational fields, the Administration reviewed and recommended approval of requests by public and private welfare agencies for critical materials needed for the construction and maintenance of essential facilities.

The statistical data from the old-age and survivors insurance wage records were used to supply answers useful in planning certain phases of the defense production and wage stabilization programs. Tabulations of business establishment, employment, and payroll data were made, for the most part on a reimbursable basis, for the National Production Authority, the Defense Production Administration, the Council of Economic Advisors, the Wage Stabilization Board, and the Economic Cooperation Administration.

To protect the old-age and survivors insurance wage records, which form the basis for insurance benefits, against possible enemy destruction, plans were developed to store microfilm copies in a secondary records repository.

CONFERENCES ON CHILDREN AND THE AGING

The two fastest growing segments of the population in the past decade have been the very young and the old, with consequent strains on community resources for meeting the needs of these two groups. The White House Conference on Children and Youth and the na-

tional Conference on Aging, both held in 1950, offered noteworthy opportunities to take stock at midcentury of the Nation's progress in dealing effectively with the resultant problems. The Social Security Administration participated actively in the planning and management of both conferences.

The findings of the Conference on Aging, held in Washington in August at the call of the Federal Security Administrator, stressed the common need for recognition, affection, economic security, and good health which the aging share with other age classes in the population, and the undesirable consequences of premature retirement, neglect, and social isolation. Following the conference, the Federal Security Administrator established a Committee on Aging and Geriatrics, on which the Social Security Administration is represented, to define and develop, in cooperation with other Federal departments, the role of Government in helping to attack the problem on all fronts.

The Midcentury White House Conference on Children and Youth, which met in December 1950, was a landmark in the development of citizen interest and participation in planning for the children of the Nation. Nearly 6,000 persons attended the meetings, including some 250 observers from other countries.

The conference was the occasion for a noteworthy marshalling of knowledge around the central theme, how to develop in children the mental, emotional, and spiritual qualities essential to individual happiness and to responsible citizenship, and the nature of the physical, economic, and social conditions necessary to this development. It produced in its recommendations a far-reaching program for furthering the healthy personality development of children and youth and for improving the conditions of life affecting them.

The response of the country to the conference was shown by the continuing activities of State and local committees in action programs built around conference recommendations. In May 1951 the National Midcentury Committee for Children and Youth was established to promote widespread understanding of the conference findings and their application to family life and community programs, and to encourage research in the development of children and youth.

INTERNATIONAL ACTIVITIES IN SOCIAL WELFARE

The Social Security Administration participated, during 1951, in a variety of international activities, including the exchange programs for trainees and experts under United Nations or United States auspices, technical missions to foreign countries, meetings of the United Nations and its specialized agencies and related organizations, and international technical studies. More than a thousand visitors re-

ceived technical services from the Administration's program bureaus and staff offices. Under the expanded exchange programs, arrangements were made for program observation and professional education in social services, social insurance, and maternal and child health and welfare. Study grants for trainees from underdeveloped areas were awarded under the Point Four program sponsored cooperatively by the Department of State and various Federal agencies. Within these broad fields there has been growing interest in community organization, rural social welfare, and specialized services in child care. State and local public agencies, private social welfare agencies, and schools of social work cooperated actively with the Administration, making possible full utilization of the country's training resources for the visitors.

Labor teams visiting this country under the auspices of the Economic Cooperation Administration were oriented to the United States social security and social welfare programs. Staff members of the Social Security Administration participated in orientation programs arranged for foreign visitors by the American Council on Education.

At the end of the year, 14 technical assistance projects had been authorized, providing social welfare and child health specialists to 10 countries in Latin America and 4 in the Middle East and South Asia. Projects undertaken during the year included consultation in putting new social welfare legislation into operation, assistance in establishing social welfare training programs and centers, and aid in the development of maternal and child health services. In the Middle East, help was being given in training staff to administer new social security and rural development programs. Special interest in training for social work and in development of child health and welfare services continued to expand in Latin America. Private social welfare organizations assisted in recruiting experts for these missions and, in some instances, participated directly in carrying out the social welfare project.

Officials of the Administration participated as United States representatives and experts at meetings held during the year by the Social Commission of the United Nations, the United Nations International Children's Emergency Fund, the International Labor Organization, the Inter-American Conference on Social Security, and the American International Institute for the Protection of Children. The Social Commission established for the first time international principles to guide governments in developing specialized training facilities for social welfare. The Commission also initiated an active program to stimulate the establishment of local community welfare centers as a basis for self-help projects directed towards raising standards of living and improving local conditions. The International Labor Organ-

ization for the first time drafted an international convention in the field of social security, including minimum standards designed to meet the variety in programs and stages of development found in the many countries now providing social security to their peoples. The United Nations International Children's Emergency Fund increasingly emphasized long-range values of its program, and projects were developed to strengthen permanent health and welfare services for children.

Staff members continued to serve on interdepartmental committees recommending social policy for these international organizations. Technical material was prepared for use by United States delegations and for international studies sponsored by United Nations organizations and inter-American agencies.

Mobilizing Human Resources

In the present national emergency, which may continue for a long period, national defense has, of course, the first claim on our productive resources. Yet, in mobilizing the Nation's resources to safeguard our democratic institutions, it would be short-sighted to think in terms of military and industrial mobilization only, or assume that there is a basic conflict between military necessity and our social objectives. Only as the full capacity of each individual is conserved and developed can the productive capacity and strength of the Nation be fully realized.

In his Economic Report to Congress in January 1951 the President, noting that some of the hazards which social security is designed to guard against are increased by the mobilization effort, declared that an increase in the protection afforded against the hazards would make the mobilization effort more effective. The President's State of the Union message called attention to the need to continue and complete the work of rounding out our social insurance system. Existing protection against the risks of unemployment, old age, and death of the family earner needs improvement; insurance protection has still to be provided against the loss of earnings through disability and against the cost of expensive medical services. In his Budget message, the President spoke of the need for programs that would maintain and develop our national strength over the long run. Despite the improvements made by the 1950 amendments, he said, our social security program still does not measure up to the full needs or aspirations of the American people, nor has it achieved the scope of protection that our economy can afford and should give.

THREAT OF INFLATION

Perhaps the most immediate threat in 1950-51 to the security of social insurance beneficiaries and public assistance recipients was the

rising price level. Inflation is a threat of course to the standard of living of the entire population; but it is potentially most destructive of the standard for persons who must live on fixed incomes. Continued inflation would undermine the progress made in 1950 toward greater adequacy of benefits in old-age and survivors insurance. The 75 percent increase effected in September 1950 in the average benefit did nothing more than restore the benefit to the purchasing power it had in 1940. Between September 1950 and June 1951, however, retail prices of goods and services as measured by the Consumer Price Index of the Department of Labor rose another 6 percent.

Continued inflation also creates a serious problem for public assistance recipients. Revisions in public assistance payments to bring the monetary value placed on requirements into conformity with price changes generally lag behind such changes and result in severe deprivation when prices are moving upward at a rapid rate.

Many of the recommendations made in succeeding sections of this report are concerned with changes in existing programs to meet the threat to continued adequacy of payments. These and other proposals for improving the programs make no change in the basic structure of the present social security program, which is sound. There are, on the other hand, still two major economic risks against which our social insurance program offers little or no protection.

LACK OF DISABILITY INSURANCE

One of the major gaps in our social insurance defenses is the lack of protection against the wage loss due to disability. Except during periods of widespread unemployment, disability represents the most common cause of interrupted income in the lives of wage and salary earners. Recent data indicate that about 5 in every 100 persons in the population 14 to 64 years of age are temporarily or permanently disabled on an average day. This ratio, as might be expected, is higher in the upper than in the lower age brackets, rising to 10 per 100 in the age group 55 to 64 years. About 60 percent of the individuals between 14 and 64 years of age found disabled on an average day have already been disabled for 7 months or longer, the duration of disability increasing with age. Perhaps three out of four persons with disabilities lasting 7 months or longer had at one time been in the labor force, and presumably all or nearly all had withdrawn from the labor force because of their disability.

Not all the wage loss attributable to disability goes uncompensated. Some is recovered through benefits administered by mutual benefit associations, unions, employer agencies, and the like, or paid by commercial insurance companies; some is covered by sick leave plans in industry and government. The new program of aid to the perma-

nently and totally disabled has recently become a resource to needy incapacitated earners who can qualify for this type of assistance. The protection against disability offered by social insurance programs in the United States is limited to particular types of disability, particular employments, or particular geographic areas.

Work-connected disability is generally provided for through workmen's compensation. In 1950 about \$350 million was paid out in cash benefits, and about \$200 million in medical services, for temporary or permanent disability arising out of employment. Available information indicates that disability of work-connected origin accounts for only about 5 percent of the total volume of disability.

The programs operated by the Railroad Retirement Board include benefits for both temporary and permanent disability. During an average 2-week registration period in June 1951, some 24,000 railroad workers were receiving sickness or maternity cash benefits. In the same month, about 80,000 former railroad workers were receiving retirement benefits because of disability; almost half were past the age of 65. The Federal Government and many State and local governments make provision for retiring disabled workers who meet certain service requirements. In June 1951, there were 46,000 former Government workers drawing disability benefits under the Federal civil service program.

Social insurance covers temporary disability for most workers in industry and commerce in only four States—California, New Jersey, New York, and Rhode Island. These programs were paying benefits to about 100,000 persons in an average week in June 1951.

The service-connected disabilities of veterans are compensable under the law, as are the other disabilities of veterans who meet certain income tests. In June 1951 some 2.4 million veterans were drawing disability benefits. Most of them were only partially disabled and were either working or attending school while drawing their benefits.

The absence of a general disability insurance system is reflected in the relatively large number of disabled individuals on the public assistance rolls. In June 1951, some 104,000 persons were receiving aid to the permanently and totally disabled. Recipients of aid to the blind numbered 97,000. The families of approximately 150,000 incapacitated men were receiving aid to dependent children. Some needy disabled individuals and their dependents, unable to qualify for aid under these three special programs, were on the general assistance rolls. In recent years from one-fifth to one-third of all new general assistance cases, the proportion varying inversely with fluctuations in the level of unemployment, have been opened because of the illness or disablement of the family earner. In June 1951 about 333,000 cases were receiving general assistance.

ECONOMIC BARRIERS TO GOOD MEDICAL CARE

Another major deficiency in our social security program is the absence of public provision for meeting medical care costs on an insurance basis. The cost of medical care constitutes a major and common threat to the family budget and as such has an essential place in social security. Few persons can know in advance how large their medical bills will be and therefore how much to budget for them. Many cannot budget the costs of even moderately expensive illness. Since we do, however, know what the cost of all illnesses will be for the population as a whole, it is possible to compute the average cost for each person or family. By assuring the availability of an equivalent amount in advance for its members, a group or a community or a nation can make sure that the money will be on hand to pay medical care costs as they arise and that the burden will not fall unduly on any family. This is the essence of insurance—in the Churchill phrase, to bring “the magic of averages to the rescue of the millions”—and is as applicable to the costs of medical care as it is to income loss due to old age, unemployment, or disability.

The growth of prepaid medical care plans is striking evidence of the appeal of the insurance approach to meeting medical bills. Helpful as such plans have proved to many of their members, they have serious limitations. Like the voluntary retirement pension arrangements in effect prior to the Social Security Act, they are restricted in coverage and in the completeness of the protection offered. Coverage is thinnest in rural areas, among families with low income, and for those who are not members of large employment or other groups. Hospitalization insurance is the most frequent protection provided, but less than half the people in the country have such insurance, while plans offering protection against the full range of needed medical care reach only about 2 percent. Voluntary insurance plans are no substitute for national health insurance operated as part of a comprehensive social insurance program. All voluntary medical care insurance, nonprofit and commercial, provided protection against only about 12 percent of private expenditures for medical care in 1950.

Voluntary insurance plans cover only a small fraction of the aged and other beneficiaries of the old-age and survivors insurance system. Therefore consideration should be given to proposals for providing hospitalization insurance to such beneficiaries and to other aged persons who are fully insured under the system but have not retired from the labor force. Such persons, who numbered 5½ million in June 1951 and might be expected to total 7 million in 1953, especially require hospital care insurance because of their generally low income, their inability to use most hospitalization insurance plans, and their higher-than-average hospital needs because of age.

A plan providing up to 60 days of semiprivate care a year per person, with payments to hospitals on a full-cost basis, could be financed under the present old-age and survivors insurance system without increase in the scheduled contribution rates.

Summary of Recommendations

The 1950 amendments represent a significant advance toward the goal of social security in a democracy—to provide a firm base on which every individual can build a good life for himself and his family while contributing, to the extent of his ability, to the Nation's productive capacity and strength. In pointing out in this and following sections of the report the need for further revisions, the Social Security Administration affirms its belief that, so long as large groups of the population and major economic risks remain uninsured, the program falls short of the protection our economy can afford and should give. The Administration therefore presents the following major recommendations.

Our first objective in the field of income maintenance remains *a comprehensive, basic national system of contributory social insurance*. Such a system would assure continuing income to families whose earnings are interrupted by unemployment, sickness, disability, retirement, or death of the principal earner. It would insure families against the costs of good modern medical care, which are unpredictable in the individual case.

We possess in our old-age and survivors insurance and unemployment insurance programs basic protection against the risks of retirement, death, and unemployment. This protection in the case of old-age and survivors insurance needs to be strengthened by *extending coverage to all gainful workers*, to bring the benefits of the program to persons lacking such protection now, to avoid the losses in protection suffered by persons who move between covered and noncovered employment, and to reduce future public assistance costs. Adjustments are needed in the benefit formula to make it more responsive to increases in wages and prices. Benefits to present beneficiaries should be increased to meet at least the recent rise in living costs.

To close the gaps in our social insurance program, we need *social insurance to cover income loss in periods of sickness and disability* and *social insurance to cover the costs of medical care*. Existing provisions against these two risks are grossly incomplete in coverage, and they can never give the full measure of protection possible under a national system.

To meet the residual and special needs that cannot be covered by social insurance we should further *strengthen the public assistance*

program by providing, among other improvements, for Federal grants to the States for general assistance, more equitable distribution of Federal funds to the States in relation to their fiscal ability and public assistance needs, increased Federal funds to meet more nearly adequately the costs of medical care for public assistance recipients, and Federal sharing in the costs of adult and family welfare services for those who need and wish such services, regardless of their financial need.

To increase our knowledge and understanding of the needs of children we need an *expanded program of research in child life*. To make our increasing knowledge available to children in all parts of the country we need appropriation of the full amounts authorized for grants to States in present legislation to permit *expansion of health and welfare services for children*.

The Bureau of Federal Credit Unions should be put on a more nearly self-supporting basis through amendments to the Federal Credit Union Act increasing the amount Federal credit unions now pay toward the costs of supervision.

Old-Age and Survivors Insurance

AT THE END of June 1951 the old-age and survivors insurance program was midway in its fifteenth year of operation. During the fiscal year, \$1.5 billion, paid in benefits, helped to give older people security in retirement and provided the means to keep bereaved families together and to help care for children.

The Significance of the Program

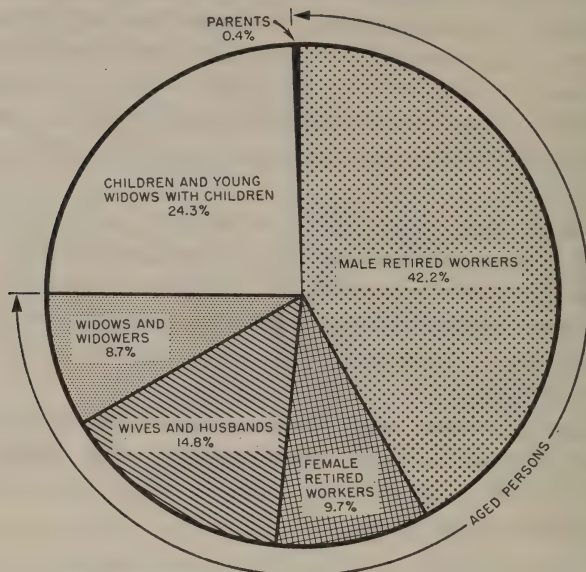
BENEFICIARIES AND BENEFIT AMOUNTS

In June of 1951 about 4 million people were receiving benefits under the program. Of these, about 3 million were aged 65 or over. Two million of them were retired workers, and another million were the wives and dependent husbands of retired workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining million, 200,000 were young widows and 800,000 were children. (See chart 3.)

The benefits paid to these people, while moderate, were of great significance to the beneficiaries. The average insurance benefit paid to a retired worker with no dependents receiving benefits was \$40.90 in June. Where the worker and his wife both received benefits, the average for the family was \$70.40. Families made up of a widowed mother and two children averaged \$91.50.

For most of the people who will come on the benefit rolls when the

Chart 3.—PERSONS RECEIVING MONTHLY BENEFITS UNDER OLD-AGE AND SURVIVORS INSURANCE, JUNE 1951



Percent for wives and husbands includes about 25,000 wives under age 65 with child beneficiaries in their care.

1950 amendments are fully effective, the insurance benefits will be higher than those payable to people now on the rolls. Benefits awarded in the fiscal year 1953 to a retired worker and his wife under the new benefit formula may average about \$95 a month, as compared with the present average of about \$70, and \$60 to a retired worker with no dependents, as compared with \$41.

ECONOMIC STATUS OF BENEFICIARIES

According to studies made by the Bureau of Old-Age and Survivors Insurance, benefits constituted the major part of the family's income for most insurance beneficiaries. The latest study, made in Philadelphia and Baltimore in 1949, showed that one-third of the married couples receiving benefits had no other permanent income, and only about 1 in 5 had other permanent income amounting to as much as \$600 during the year. ("Permanent income" includes a year's old-age and survivors insurance benefits, retirement pay from former employers, veterans pensions, private annuities, and income from investments.) Without the insurance benefits, only 1 couple in 8 would have had as much as \$75 a month in retirement income; only 1 in 12 would have had as much as \$100. With their benefits, probably half of these married couples now have an assured income of \$75 a month, and more than one-fourth probably have \$100.

Two-thirds of the families of widows and children included in the survey had no permanent income other than their benefits. Among the widows who did not work but stayed home to care for the children, only 1 in every 10 families would have had \$75 a month or more without their benefits. With the benefits, 6 in every 10 families probably now have as much as \$75 a month. Thus, old-age and survivors insurance was extremely important in the lives of most of the beneficiaries studied, as it is for thousands of other beneficiary families throughout the United States.

THE PROTECTION PROVIDED

In June 1951, about 12.7 million people in the United States were 65 or over. About 3.9 million, or somewhat less than one-third, were working or were the wives of men who were working. Of the remaining 8.8 million, about one-third were getting old-age and survivors insurance benefits.

In the same month there were about 2 million paternal orphans under 18 years and about 800,000 unremarried widows caring for young children. Of these 2.8 million widows and orphans, about half a million were working. Of the remaining 2.3 million, 900,000, or about 40 percent, were receiving old-age and survivors insurance. In addition, monthly benefits were being paid to 70,000 children of old-age beneficiaries.

Thus it appears that at the end of the fiscal year old-age and survivors insurance was meeting, or helping to meet, the problem of income maintenance for about one-third of the old people, and close to one-half of the widows and orphans, who could not count on earned income for support.

Of the population under 65 years, 57 million were insured under the program at the beginning of the calendar year 1951. Eighteen million of these fifty-seven million people were permanently insured—that is, whether or not they continue to work in covered employment they are assured of the right to benefits when they attain age 65 and their families are assured of protection in the event of their death. An additional 39 million were also insured, but would have to continue working in covered employment and contributing to the program for an additional period to make their insured status permanent. In terms of survivor insurance protection, these figures mean that three out of four of the mothers and young children in the Nation were assured that they would receive monthly benefits if the father or working mother of the family died.

By January 1951, some 83 million people still living had worked in covered employment and contributed to the program at one time or

another during the first 14 years of its existence. Almost three out of every four had insurance protection, and for many of them the protection was permanent.

COVERAGE

It is expected that, during the calendar year 1951, 60 million people will make contributions toward their insurance protection. The program now covers about 77 percent of the Nation's paid civilian jobs. An additional 9 percent are covered by other public retirement systems—civil service, railroad, and State and local employee retirement systems. Only about 14 percent of the Nation's paid workers—most of them farmers, self-employed professional people, or farm or household workers who are not regularly employed by a single employer—have no coverage under any public retirement program.

CONTRIBUTIONS AND DISBURSEMENTS

Benefit payments during the fiscal year amounted to \$1,498 million; with administrative expenses of \$70 million, the total outgo amounted to \$1,568 million. Contributions amounted to \$3,120 million, payments from the general funds of the Treasury to meet the cost of benefits attributable to World War II service were \$4 million, and interest payments on the investments of the old-age and survivors insurance trust fund were \$287 million, bringing the total income to \$3,411 million. The difference of \$1,843 million between income and outgo represents the increase in the trust fund during the year. At the end of June 1951, the fund totaled \$14.7 billion held and invested for the benefit of the contributors to the program.

On June 30, all assets of the fund, except \$400 million held in cash to meet current withdrawals, were invested in United States Government securities as required by law; \$2.2 billion was invested in marketable Government bonds (identical with similar bonds owned by nongovernmental investors), and \$12.1 billion was invested in special certificates of indebtedness issued directly to the trust fund. The special certificates of indebtedness bear interest at the average rate on the total interest-bearing Federal debt at the time they are issued. The average interest rate on all investments of the trust fund at the end of the year was about 2.2 percent.

Administering the Program

The proper and efficient administration of the law is an essential ingredient in the provision of income security. Most of the beneficiaries depend on their insurance benefits for the necessities of life; in many instances they have no other income, or income too small to live on. They must be able to count on receiving their benefits promptly and regularly.

PLANNING FOR THE EXPANDED PROGRAM

With the passage of the amendments it was essential to get the increased benefits promptly to the more than 3 million beneficiaries on the rolls and to the nearly 700,000 people, previously unable to qualify for benefits, who were now expected to apply for and receive benefits. While the new coverage provisions were not effective until the beginning of 1951, immediate preparation was necessary to ensure smooth operation, so that the newly covered persons would be assured of the maximum possible protection under the program.

Advance planning, therefore, was carried as far as possible before the amendments were passed. Though the specific content of legislative provisions and the amounts of supplemental appropriations that might be made could not be anticipated, it was possible to forecast the general scope of the legislation and to make a number of important administrative decisions.

The Bureau staff was increased only enough to meet long-term workload increases; the expensive procedure of hiring temporary employees to process a series of peak loads was avoided. Employees were shifted from one operation to another as peak loads occurred, and a great deal of overtime was used. An extensive public information program was planned to ensure that the public in general, and especially the potential beneficiaries, would understand their rights, benefits, and responsibilities.

THE IMPACT OF THE 1950 AMENDMENTS

The first task was to increase benefits to the new amounts in time to meet the mailing schedule of October 3, 1950, for the September benefit checks. Immediately after the amendments became law, post-cards were sent to about 3 million beneficiaries informing them of the date when they would receive checks in the higher amounts. This was done to acquaint the beneficiaries with what they might expect under the new law; it also prevented the field and area offices from being swamped with inquiries.

About 70 percent of the job of increasing the benefits was done mechanically, using tabulating equipment. The rest, which required examination of beneficiary case folders, was accomplished by a combined manual and mechanical operation. With the cooperation of the Disbursing Offices of the Treasury Department, all checks were in the mails by October 3, just 36 days after the law was signed.

Meanwhile, because of the liberalization of eligibility requirements, the claims load began to increase. Before the amendments the Bureau was receiving and processing about 250,000 claims each quarter. After the new provisions were adopted this figure doubled; for short periods,

moreover, the Bureau received and processed a claims load four times as heavy as the previous load.

To supplement the public information program, the field office staffs examined claims record cards to locate persons who could now qualify with six quarters of coverage. Lists of the potential claimants were compiled and letters were sent to them immediately after the amendments became law. This action was intended to reduce to a minimum the loss of benefits resulting from the failure of an individual to understand that the amendments might have made him eligible for benefits.

As a result of the rapid growth in number of claims filed, the average time for processing a claim, from filing of the application to certification for payment, increased by January 1951 to 54 calendar days. But by June it had been reduced to about 27 calendar days—very close to the average in prior periods.

The registration of newly covered employees and employers began to gain momentum in December and remained at a high level through the rest of the fiscal year. Employer registrations increased by more than 150 percent over those in the fiscal year 1950; about 80 percent more employee accounts were established.

Planning administration of the new coverage was more complex. Forms and procedures for the use of nonprofit organizations, for example, had to be developed well ahead of January 1, 1951. A great many questions of interpretation of the law had to be settled so that policies could be determined and operating instructions and procedures issued. The States had to receive the information they needed to frame legislation that would meet the requirements of the Federal law governing agreements for coverage of State and local government employees. An informational booklet with a tear-off coupon to register household employers was prepared and widely distributed and a quarterly envelope-type tax return form was developed in cooperation with the Bureau of Internal Revenue to simplify tax and wage reporting for the housewife. Information on necessary procedures and definitions of rights and obligations was disseminated to farm people with the cooperation of the Department of Agriculture.

For the first quarter in which the new coverage was effective (January–March 1951), reports had been received in the Bureau by August 31 from 543,000 employers of household workers who reported the wages of their employees on the simplified envelope tax return (Form 942), and an additional number had been received from employers who reported their household employees with their business employees on the regular Form 941. The general excellence of the returns made by housewives on the special simplified form was particularly gratifying, since this group probably had the least acquaintance with

reporting procedures. For the same quarter, 118,000 employers had reported wages for agricultural workers by July 27.

As of the end of June, 31,200 nonprofit organizations had qualified for coverage by filing certificates waiving exemption of taxes under the Federal Insurance Contributions Act; about 700,000 employees of these organizations had elected coverage. Agreements covering public employees had been signed with 10 States—Arizona, Arkansas, California, Idaho, Kentucky, Nebraska, Oklahoma, Utah, West Virginia, and Wisconsin. In addition, two agreements had been signed by interstate instrumentalities—the Atlantic States Marine Fisheries Commission and the Interstate Oil Compact Commission. Eleven more States had agreements in process; nine other States and Territories had passed enabling legislation.

ADMINISTRATIVE COSTS AND GENERAL MANAGEMENT

The rise in the Bureau's composite workload was roughly 47 percent during the year, while the number of man-hours worked, including overtime, increased only 20 percent. The cost incurred by the Federal Security Agency in administering the program was about \$55 million, as compared with \$43 million in the preceding fiscal year. The figure for 1951 was only about 2.6 times the amount expended in the fiscal year 1941, the first full fiscal year of benefit payments, although the volume of work has tripled and soaring prices have tremendously increased the costs of doing business. Perhaps a better index of improved efficiency is the fact that 47 people now handle the amount of work that required 100 people in 1941.

Behind this achievement in reducing costs is a continuing emphasis on management improvement. To cite an example, the Bureau recently arranged for a survey of its wage record and statistical operations by the National Bureau of Standards to determine the possible application of electronic computing machines to these operations. Although it may be some years before this type of machine can be economically adapted to all the Bureau's recordkeeping needs, the potentials for future savings are enormous. The Bureau is, for example, already using electronic calculators that compute primary insurance benefit amounts—an operation involving addition, subtraction, multiplication, and division—at a speed of 100 a minute.

As a result of a technical change in the law under the 1950 amendments, plans have been made to issue a single monthly check for all the children in a family unit instead of individual checks for each child. The advantages are large. With 800,000 children on the rolls at the end of June, Treasury addressograph plates and checks could be reduced by 300,000; savings to the trust fund in the recertification

operation alone are conservatively figured at \$200,000 in the first year. The Treasury Department, the General Accounting Office, the Federal Reserve Board, and the Post Office Department are all interested in this plan because of potential over-all savings.

Of the total administrative cost of the program within the Federal Security Agency, 46.9 percent was spent for developing and adjudicating claims; 10.8 percent for maintaining and adjusting the roll of beneficiaries; 28.6 percent for maintenance of wage records; and 11.1 percent for general administration in the Bureau of Old-Age and Survivors Insurance. The remaining 2.6 percent represents work done in connection with the program by the Appeals Council, the Division of the Actuary, and other units of the Federal Security Agency.

The total administrative cost within the Agency in the fiscal year amounted to 1.8 percent of the contributions received. If the Treasury Department's administrative costs for the insurance program are included, the cost of running the program was about \$70 million, or 2.3 percent of the contributions collected.

Monthly benefits were being paid to 4.0 million persons at the end of June 1951 at a monthly rate of \$143.7 million. These figures represent increases of 1.1 million in beneficiaries and \$83.0 million in monthly amount over the totals for June 1950. The increases resulted chiefly from the liberalization of eligibility provisions and increase in benefit rates. Monthly benefits were awarded in the fiscal year to 1.4 million persons, more than double the previous record high. The increases were greatest for retirement and wife's benefits. Lump-sum death payments totaled 316,600, about 100,000 more than in the preceding year.

The 1950 amendments have placed the Bureau's workloads permanently at a substantially higher level, though there will be some leveling off from the current peak loads. This additional work has aggravated the problem of adequate space for the Bureau, long a pressing one. The major recordkeeping operations are on two shifts because of lack of space for single-shift operation. The Bureau is now operating in six separate buildings in Baltimore; for best results its operations should be under one roof.

Improving the Program

The improvements in the program made by the 1950 amendments have already lightened the load which must be borne by the public assistance programs financed by general taxation. By June 1951, as a direct result of the insurance changes, State assistance agencies had been able to discontinue assistance to 44,000 aged recipients and to

6,900 families receiving aid to dependent children. More important, although not measurable, is the extent to which the insurance program will from now on take over the load which would otherwise have to be borne by the assistance programs.

The intended function of the insurance program is to serve as a primary source of protection against economic insecurity for the American people. In February 1951, for the first time, it began providing benefits to more aged persons in the population than were being aided under old-age assistance. The insurance program can do even more, however, if it is further strengthened and improved.

COVERAGE

Because until 1951 the program covered only employees in commerce and industry, it has not been as effective in rural as in urban areas. For example, among the 12 States having the greatest percentage of population in urban areas, only 57 old people were getting assistance in February 1951 for every 100 getting old-age insurance; in the 12 most rural States, on the other hand, 214 old people were getting assistance for every 100 getting insurance.

The 1950 amendments made a beginning toward providing security for farm people by bringing into the program farm workers who work for a single employer regularly and for a considerable period. But probably only about 10 percent of all the people who earn their living by farm work have been included. The program cannot be really effective in rural areas until more farm people are covered.

Although two of the three national farm organizations requested in 1950 that farm operators be included in the insurance program, Congress believed there was not sufficient evidence that farmers had a strong desire for coverage. Now that farmers are being brought into contact with the program through coverage of their regular employees, they are coming to feel increasingly that they, too, should be included. Coverage would be administered in the same way for farm operators as for self-employed people already covered; no special administrative problems would be involved.

Additional farm workers should also be included in the program, and the present provisions governing the coverage of farm workers should be simplified. To be covered, a farm worker must now first serve a "qualifying quarter"—that is, he must be continuously employed by a single employer during the entire quarter. He is then covered in succeeding quarters if he works for that employer on a full-time basis on 60 days during the quarter and is paid at least \$50 for such service. If the law were changed to require only a cash wage test, farm employers could more easily carry out their responsibilities and, of course, many more employees would be covered.

Similarly, the provisions relating to domestic service should be extended and simplified. To be covered under present law, a household worker must work for a single employer on each of 24 days during a calendar quarter and must be paid at least \$50 in cash for such service. If the only requirement were a cash wage test, it would be easier for housewives to fulfill their obligations, and more household workers would be covered.

Self-employed professional people were excluded from coverage because Congress was not sure that the majority wanted to be covered. There is indication that interest in coverage among professional groups is increasing and will continue to increase as professional people understand what it would mean to them.

For the groups that are covered under other public retirement programs—such as most Federal workers, members of the Armed Forces, and many employees of State and local governments—the problem is a different one. The worker who moves from job to job will lose part or all of his retirement protection. In a dynamic economy, though, the movement of workers is inevitable. Some indication of its extent is given by figures relating to the railroad retirement program. While average railroad employment in 1949 was around 1.4 million, about 8½ million people have worked in railroad employment since 1936. Some three-fourths of these 8½ million have also worked in jobs covered by old-age and survivors insurance.

While this shifting from job to job is to a considerable extent desirable, it has disadvantages from a standpoint of social insurance protection. The employee who changes jobs may fail to remain in any single retirement system long enough to acquire benefit rights or he may qualify for more than one benefit and, if he does, the total of benefits paid may in some cases be excessive. To ensure that the protection offered by retirement programs is real and that desirable labor mobility is not discouraged, arrangements should be made for coordinating old-age and survivors insurance and the protection furnished under the various public retirement plans.

Since the passage of the 1950 amendments, the groups covered by other public retirement systems have shown a great deal of interest in old-age and survivors insurance. In some instances this interest has taken the form of proposals for certain improvements in the other systems to make them comparable with old-age and survivors insurance. Other interested groups have proposed that they be covered under old-age and survivors insurance and that the special retirement systems be placed on a supplementary basis. The latter is the most economical and feasible method of providing adequate protection.

The most immediate need for extending the protection of old-age and survivors insurance is in the field of military service. Our Armed Forces have more than doubled during the past year and a half, with the prospect that many more people will enter military service in the future. The great majority of them will acquire no lasting protection under the service retirement programs; many will lose some or all of the protection they had acquired under old-age and survivors insurance. The 1950 amendments provide credit for service in the Armed Forces between September 1940 and July 1947 only. To restore the protection that many servicemen have already lost, immediate provision should be made for granting retroactive old-age and survivors insurance credit for service from the end of World War II to the present. The long-term need to maintain the protection of servicemen should be met on a more systematic and permanent basis by bringing servicemen under the coverage of the program.

Employees of State and local governments who are not under retirement systems may now be covered by old-age and survivors insurance through agreements between the Federal Government and the States. Many employees who are under retirement systems also want to be covered under the Federal system, and at least one retirement system has been abolished so that the employees may obtain old-age and survivors insurance coverage. The law should be changed to permit employees of State and local governments to be covered under the insurance program whether or not they perform services in positions covered by retirement systems. If the members of the systems believe special provisions are necessary to safeguard their interests, a provision should be included in the Federal law that coverage not be extended unless a referendum shows that employees favor such coverage.

The 1950 amendments provided for the coverage of employees of religious, charitable, educational, and other nonprofit organizations at the option of the organization and two-thirds of its employees. Preliminary estimates indicate that as many as 80 percent of the eligible employees are already covered under these provisions. Nevertheless, many employees of nonprofit organizations who need and want coverage may not be able to obtain it because the employer decides against it or because employees who see no immediate personal advantage are opposed. The situation should be carefully studied, and if experience indicates that there will continue to be many people in nonprofit employment without retirement protection the law should be changed to provide protection for all the employees.

Further extension of coverage will of course make the program more effective in the long run, and will help to keep the assistance

burden from growing in the future. Extension of coverage will not help, though, so far as the present assistance load is concerned. This fact has led to proposals to work out some sort of arrangement for paying benefits under the insurance program to all the present aged.

The effect of such a proposal in reducing old-age assistance expenditures depends, of course, on the size of the benefit provided. But it should be kept in mind that in all probability there would still be a considerable number of aged persons who would need supplementary assistance.

If any such proposal is adopted, the cost of the resulting noncontributory benefits should be met out of general taxation rather than from the contributions of covered workers and their employers. To keep the cost of payment of benefits to noncontributors within bounds, it is absolutely essential that any plan to bring in the present aged be accompanied by extension of coverage under the insurance system to all gainful employment. If this is done, those retiring in the future would have eligibility based on contributions, and the need to pay benefits to noncontributors would be confined largely to the present aged. Only with universal coverage could a plan for bringing in the present aged be considered as a transitional device that would not substantially increase the long-run cost of the system or threaten the contributory principle upon which the insurance program is founded.

BENEFITS

Another way to increase the program's effectiveness is by making it more responsive to increases in wages and prices. If benefit amounts fail to adjust promptly to these factors, more people dependent on benefits will become needy, and increased supplementation of benefits by assistance will be necessary.

Under the present provisions, benefits are based on an average monthly wage computed over the worker's entire working lifetime after 1950. (For persons who were covered before the 1950 amendments, the period may in certain circumstances begin with 1937.) This means that low earnings in the early years of a working lifetime reduce the benefit amount. Moreover, the long-run trend of wages is upward. Benefits could be related to rising wage levels and to the wages that had determined the worker's standard of living before his retirement if the average monthly wage were computed over the 5 or 10 consecutive years of highest earnings.

The present average monthly wage, though, has another function. Because it is computed over the entire working lifetime, it is reduced if the worker spends time outside covered employment; it therefore reflects the proportion of his working lifetime during which he contributed to the program. If a change is made so that the average

monthly wage is computed over 5 or 10 years, other provision is necessary so that higher benefits will be paid to those who have spent a greater proportion of their lives in covered employment.

In addition to reflecting the proportion of the individual's working lifetime that he spends in covered employment, the benefit should also reflect the number of years he spent under the program. Under present law, a man now aged 60 will get the same benefit amount after contributing for only 5 years as a man now aged 40 who has the same average earnings and has contributed for 25 years. Before the 1950 amendments, the basic benefit amount was increased by 1 percent for every year the individual spent in covered employment. The Social Security Administration urges that this 1-percent increment be restored to the benefit formula so that the long-term contributor will get some return for his extra contribution.

Even if these changes are made, benefit amounts will not keep pace with rising wages unless the maximum on wages that may be credited toward benefits is raised. This limit was increased in 1950 from \$3,000 a year to \$3,600, but the \$3,600 ceiling is not high enough to take account of increases in wage rates in the past 12 years. In 1939, when the \$3,000 limit was established, only 5 percent of all year-round workers earned more than \$3,000. In 1950, 22 percent earned more than \$3,600. As wages go up, the percentage of workers who cannot have all their wages counted toward benefits will of course increase, and benefit amounts will not reflect the rise in wages. A higher maximum is therefore needed and should be established.

Similarly, as wages go up, the portion of the average wage to which the first part of the benefit formula is applied should be increased. Under the new formula the benefit is equal to 50 percent of the first \$100 of the average monthly wage plus 15 percent of the remainder. This formula expresses the intent of Congress to replace a larger percentage of wages for low wage workers than for those with high wages. However, as wage rates rise, the concept of what constitutes "low" wages also changes. Unless the amount to which the 50 percent part of the formula applies is increased as wages rise, the intent to replace a larger proportion of low wages will not be effectively carried out.

The changes suggested in the benefit formula will not, of course, help the situation of people who have been drawing benefits for some time. It is essential that benefits awarded in the past, as well as those currently awarded, be kept in line with current wage and price levels. Despite the 1950 benefit increases, further increases are already necessary because of rising wages and prices, and the Social Security Administration recommends an immediate increase in benefit amounts for both present and future beneficiaries.

Finally, as wages go up, the amount which beneficiaries may earn and still get benefits should be increased. The amount should be large enough so that the beneficiaries may supplement their benefits by engaging in part-time work; as wages increase, the amount of wages which can be earned by part-time work also increases. Such earnings, of course, should not be so large that beneficiaries could continue to work at regular full-time jobs and still get benefits. The benefits paid under the program are not intended as an annuity payable at age 65 merely because the worker reaches that age, but are intended rather to assure a regular income to him and his family when he retires. If benefits were paid to every insured person at age 65, regardless of retirement, it would be considerably more expensive to supply adequate benefits.

The 1950 amendments made an exception to this rule by permitting persons 75 and over to receive benefits irrespective of retirement. As a result of this change, the program may be thought of as one that provides retirement benefits between age 65 and 75, and annuity payments thereafter. A program of this kind is of particular value to self-employed persons who reduce their activity with advancing age but continue to do substantial work until death. If additional self-employed people are covered under the program, Congress may wish to consider whether the age at which the test of retirement is suspended—in other words, the age at which an annuity, rather than a retirement benefit, is payable—should be 70 rather than 75.

Further consideration should also be given to the question of permitting women to qualify for benefits at age 60. Wives are usually a few years younger than their husbands, and it cannot reasonably be expected that when a man retires at 65 his wife will be able to get a job to supplement his retirement income. Similarly, a woman widowed at age 60, or an aged dependent mother, may have a very difficult time getting a job if she has not previously worked. If wives, widows, and dependent mothers are permitted to receive benefits at age 60, consideration should be given to lowering the retirement age for women workers, also.

HOSPITALIZATION INSURANCE

To the extent that the insurance program is able to respond quickly to increases in wages and standards of living, the benefit amounts will be more nearly adequate to meet the ordinary needs of the beneficiaries. However, a good many beneficiaries have heavy expenses—such as for needed hospital care—that the benefits cannot be expected to cover. It would not be practicable to increase payments to all beneficiaries sufficiently to cover hospital expenses, since not all of them have such expenses and the amount of such expenses varies greatly among those who do incur them.

A recent survey of old-age and survivors insurance beneficiaries in two large cities showed that only 1 out of 12 aged couples who had obtained hospital care had any form of hospitalization insurance. Most beneficiaries are not members of groups to which such insurance is available, and because of their age they unquestionably have higher-than-average hospital needs.

The need for insuring beneficiaries against hospital costs can be met through old-age and survivors insurance. The Administration recommends that the program provide hospitalization insurance for insured workers over 65 (whether or not retired) and their dependents and for survivor beneficiaries. The initial annual expenditure for the proposed benefits is estimated to be less than two-tenths of 1 percent of taxable payrolls; it could be expected to rise to about three-tenths of 1 percent 10 to 20 years later.

INSURANCE AGAINST DISABILITY

The improvements so far recommended would enable the insurance program to do a bigger part of the job of providing income for workers who retire after age 65 and for the families of workers who have died. But what about workers forced into premature retirement by disability?

According to surveys conducted jointly by the Census Bureau, the Bureau of Old-Age and Survivors Insurance, the Office of Vocational Rehabilitation, and the Public Health Service in 1949 and 1950, more than 4 percent of the civilian population between the ages of 14 and 64—not counting persons in mental, tuberculosis, and other hospitals—are unable, on an average day of the year, to go about their regular pursuits because they are disabled. About 2 percent have been disabled for 7 months or more. In round figures, that amounts to 2 million cases of prolonged disability. Moreover, the number of disabled people is increasing and will continue to increase as proportionately more of the population is in the older ages.

The approach to the problem of disability must be twofold. It is essential to rehabilitate and return to productive employment as many disabled workers as possible, and it is essential to provide income for those who cannot be rehabilitated, as well as temporarily for those who can eventually return to work.

Many people incapacitated for work by injury or illness are in danger of becoming permanently and totally disabled. Many could be saved from lifelong invalidity, however, by early efforts at rehabilitation to restore them to gainful employment. A program of disability insurance should make rehabilitation services available to all those in danger of suffering permanent and total disability. Moreover, during rehabilitation, such a program should provide cash benefits to support the disabled persons and their families. With

a program of this type as many disabled people as possible would be rehabilitated. It would expand rehabilitation facilities, now severely limited, and it would promote the training and employment of additional expert personnel, since rehabilitation services would be paid for from insurance contributions. Most important of all, it would help the disabled to make the most of their innate drive to overcome their handicaps and regain their independence.

If a program of this kind were adopted, the number of people rehabilitated each year could be raised considerably above the present 60,000. Nevertheless, with our limited knowledge and facilities, we must expect a much larger number of cases to be found incapable of rehabilitation. For these individuals an insurance program of income maintenance during disability must be provided if they are not to become a burden on their relatives or have to turn to public assistance.

Such a program should also contain provisions to preserve the retirement and survivor insurance protection of disabled workers. Under the present insurance program, a disabled worker not only must get along without benefits until age 65, but even then he may not get adequate benefits because his period of disability will have substantially reduced his benefit amount or may have entirely wiped out his right to benefits. Similarly, if he dies prematurely his family may be left with inadequate benefits or none at all.

The provision of Federal grants for public assistance—particularly the new program of aid to the permanently and totally disabled—now helps the States bear the burden of supporting the needy disabled. But useful as these grants are, they are not a substitute for an insurance program. The disabled person and his family can be helped through assistance only after their financial resources are nearly exhausted. Through an insurance program, society can plan in advance to meet the problem of disability in an orderly and systematic way and to protect the economic resources of the family.

Temporary disability, lasting only a few weeks or months, is of course less catastrophic than prolonged disability, but it occurs much more frequently and affects more people. In the absence of Federal legislation to provide insurance against temporary disability, only four States have programs providing cash benefits for temporary disability. If the development of such disability programs is left entirely to the States, it may be many years before most of them establish adequate plans. In order to provide protection against temporary illness for as many people as possible at the earliest possible time, the Administration recommends a Nation-wide program of temporary disability insurance appropriately related to permanent and

total disability insurance, old-age and survivors insurance, and unemployment insurance.

FINANCING THE PROGRAM

The schedule of contributions provided in the 1950 amendments was designed to make the system self-supporting on the basis of an estimated level premium cost of 6.05 percent of covered payrolls. Moreover, this schedule of contributions allows for a continual liberalization of benefits as wage levels rise. Because of the nature of the weighted benefit formula in old-age and survivors insurance, benefit amounts, expressed as a percent of a worker's average wage, decline as his average wage increases. Similarly, for the program as a whole, benefit costs, measured as a percent of payroll, drop as wage levels rise. Consequently, both congressional committees that considered the 1950 amendments recognized that the scheduled contribution rates allowed for additional benefit increases if wages rose above the level (1947) used in the cost estimates on which the contribution schedule was based.¹ Average wages in covered employment have now increased 20 to 25 percent above the 1947 level. It is therefore possible, without changing the contribution schedule or the self-supporting basis of the system, to provide for many of the increases in the benefit level and scope of the program proposed in the preceding pages, both for those now on the rolls and for future beneficiaries.

Public Assistance

THE 1950 amendments to the Social Security Act represent a significant forward step in defining the role of public assistance in the social security program. In expanding coverage and liberalizing benefits under old-age and survivors insurance, Congress made clear its belief that social insurance should carry the Nation's major income-maintenance burden and that public assistance should meet the needs not covered or inadequately covered by the insurance program. And by extending the scope of Federal participation in the public assistance program to include groups not formerly aided, Congress made it possible for this program to come closer to meeting its objectives.

The changes in the public assistance provisions resulted in far-reaching and substantial improvements. In addition to several program changes, coverage was expanded by broadening Federal financial participation in the following ways:

A new title was added to the Social Security Act which provides grants-in-aid to the States for assistance to needy persons who are permanently and totally disabled because of physical or mental handicaps.

¹ S. Rept. 1669, 81st Cong., 2d sess., p. 34, and H. Rept. 1300, 81st Cong., 1st sess., p. 33.

Public assistance grants were made for the first time to Puerto Rico and the Virgin Islands.

In aid to dependent children, Federal participation was made available not only in payments for the support of children but also in assistance (up to \$27 a month) to the needy parent or other relative with whom the dependent child is living.

Federal participation was extended to payments made by State public assistance agencies to needy persons who are patients in a public medical institution, but excluding patients in mental or tuberculosis hospitals and patients in public medical institutions because of a diagnosis of mental disease or tuberculosis. (After July 1, 1952, no Federal participation will be available in payments made to persons in a private medical institution because of tuberculosis or a psychosis.)

Program Developments

IMPLEMENTING THE 1950 AMENDMENTS

Activities of the Bureau of Public Assistance during the fiscal year 1951 were concentrated on interpreting the amendments, developing policies, and assisting States to adapt their programs to these changes. Preliminary policy statements were prepared on all amendments effective October 1, 1950, for the immediate use of State agencies. In September, State public assistance administrators and other State staff met with the Bureau to discuss proposed policies and standards related to the amendments. Regional staff activity was directed to developmental work with State agencies on necessary State legislation and policy, supported by consultation from the departmental staff.

The nature of several amendments necessitated close collaboration with other constituent units of the Federal Security Agency, national private organizations, and professional groups in developing policy materials and planning for similar working relationships at State and local levels. For example, an interagency advisory committee, including representatives of the various Agency programs concerned with medical care, provided technical guidance in the development of policy for the medical care aspects of the amendments. The Office of Vocational Rehabilitation, the Public Health Service, and the Children's Bureau, as well as such national voluntary agencies as the National Social Welfare Assembly, the American Public Welfare Association, the National Legal Aid Association, and numerous other groups, worked closely with the Bureau on problems of mutual interest. Representatives of State and local public assistance agencies gave generously of their time in working through problems of policy and practice. A clinic on methods of group teaching was also held in Washington in May 1951, attended by representatives from 23 States, to discuss methods that would be useful to State agencies in training workers and helping them understand the new content involved in the amendments.

By the end of June 1951 the number of States which submitted new plans for operating under the amendments was as follows: 32 for the new category of aid to the permanently and totally disabled, all but 2 for including the needy adult relative in aid to dependent children, 8 to permit payments to vendors of medical service, 34 for payments to patients in medical institutions, and 18 pertaining to exemption of \$50 earned monthly income in aid to the blind. The amendments also contain a provision, effective to June 30, 1955, that permits Federal approval of a State plan for aid to the blind, even though it does not require consideration of the blind individual's income and resources in determining his need, if it meets all other requirements for approval. However, Federal funds will be available only for cases in which income and other resources have been considered. Pennsylvania submitted a plan under this temporary provision, and Missouri and Alaska passed laws enabling them to submit such plans.

The following discussion of several of the amendments will illustrate the nature of the planning and other work undertaken by the Bureau and State agencies in getting them into operation.

Aid to the permanently and totally disabled.—To qualify without delay for Federal funds for aid to the permanently and totally disabled, which became effective October 1, many States established programs under existing laws or made plans to request their legislatures for necessary legal authority and appropriations to do so. Alabama was the first State to have its plan approved. By December, 16 other States were operating programs or had submitted plans. As of the end of June, 30 States were administering programs with Federal participation in payments, and 2 others had submitted plans.

Assistance under this program is not limited to persons who are completely and permanently helpless but may include those who are now largely helpless but might be rehabilitated to some extent. Both the Bureau and the State agencies recognized that the agencies would need to obtain competent medical and social work staff and to develop working relationships with other agencies that provide medical and rehabilitative services. It was also clear that the determination of permanent and total disability must be based on a medical diagnosis and that the extent of the resulting disability must be evaluated in the light of the social factors in the individual case. The Office of Vocational Rehabilitation helped to develop tentative policy materials for use by State public assistance agencies in preparing State plans for the program and in laying the groundwork for constructive cooperation between State public assistance and vocational rehabilitation agencies.

The majority of the States adopted a definition of permanent and total disability which permits a finding of eligibility when the individual's permanent impairment, disease, or loss is sufficiently severe to prevent him from engaging in a useful occupation, including homemaking. A few other States limit the definition to "complete helplessness," usually defined as "dependent in whole or in part on the services of others for some of the activities essential to daily living." A special study of the characteristics of individuals who became beneficiaries under the program was conducted simultaneously in all States operating approved plans in June 1951 to obtain data that might be helpful in future planning for meeting the needs of the disabled.

Operations under the new program have encouraged closer relationships among State assistance, rehabilitation, and health agencies. States have already indicated with enthusiasm that the advantages of the "team approach" in administering this program should be extended, when appropriate, to other assistance programs. Cooperative working relationships have made rehabilitation services available to persons who heretofore have not been aware of, or referred for, such service.

Payments for medical care.—Federal participation in the cost of medical care for needy individuals had previously been limited to such costs as could be included in the money payment to the individual but were not in excess of the statutory maximum amount set in each assistance program. Thus the recipient could pay for his medical service out of his assistance grant, but payments made by the agency on behalf of recipients to doctors, hospitals, and other suppliers of medical care were not subject to Federal financial participation, even though the total payments were within the statutory maximum.

Although the amendment, effective October 1, 1950, provided Federal participation in State payments to those who provide medical care for public assistance recipients, it did not change the maximum limitation on Federal participation in the individual assistance payment. The amendment does not create a medical care program, but it does offer States the option of providing for medical care needs of individuals in the money payments to recipients or paying for medical care through other methods, within the Federal matching maximums.

Tentative standard-setting materials were prepared to help State agencies develop the medical care item as part of the State's standard, and to plan for other changes resulting from this amendment. State agencies have developed definitions of medical care that vary considerably, reflecting differences in State laws, medical facilities, and available funds. Some States have been able to include only medical

care to meet acute emergencies; others have defined the program more broadly.

State agencies have identified the medical services people may obtain from existing sources, the needs for medical care that are still not met, and the part of the unmet need that can be included in the State's definition of medical care. Experience under this amendment, although limited in scope, will help point the way to further developments in provisions of needed medical care to low-income groups.

Notice to law-enforcement officials.—The problem of desertion and abandonment and its impact on aid to dependent children received considerable congressional consideration during the past year. The resulting amendment, effective July 1, 1952, requires that instances of desertion or abandonment of children by a parent be brought to the attention of the proper law-enforcement officials when eligibility for aid to dependent children is established and aid furnished.

To prepare for administering this amendment, which emphasizes the responsibility of State agencies for developing relationships with law-enforcement officials, an advisory group of State staff and representatives of related agencies, professions, and other interested groups met in Chicago in November and again in June to consider the respective responsibilities of public assistance and law-enforcement agencies.

Extension of public assistance to Puerto Rico and the Virgin Islands.—The problems normally encountered in setting up new programs were intensified in launching the public assistance programs in Puerto Rico and the Virgin Islands, because of the distance from the mainland and the difference in the background experience of the islands from that of the States.

Directors of the two insular public assistance agencies attended the State administrators' conference held in Washington in September, at which time plans were developed for initiating the new programs. Effort was made to adapt successful methods of State operation to the atypical situation in the smaller insular agencies. Bureau staff made several field visits subsequently to Puerto Rico and the Virgin Islands to assist in the organization, procedures, and plans so that Federal funds could be granted as quickly as possible. All plans were approved for the Virgin Islands on December 26, 1950. Plans for old-age assistance, aid to the blind, and aid to dependent children in Puerto Rico were approved on March 30, 1951, and for aid to the permanently and totally disabled, on June 18.

RECIPIENTS AND THEIR PAYMENTS

In June 1951, slightly more than 5 million people were benefiting from federally aided public assistance, and roughly three-fifths of a

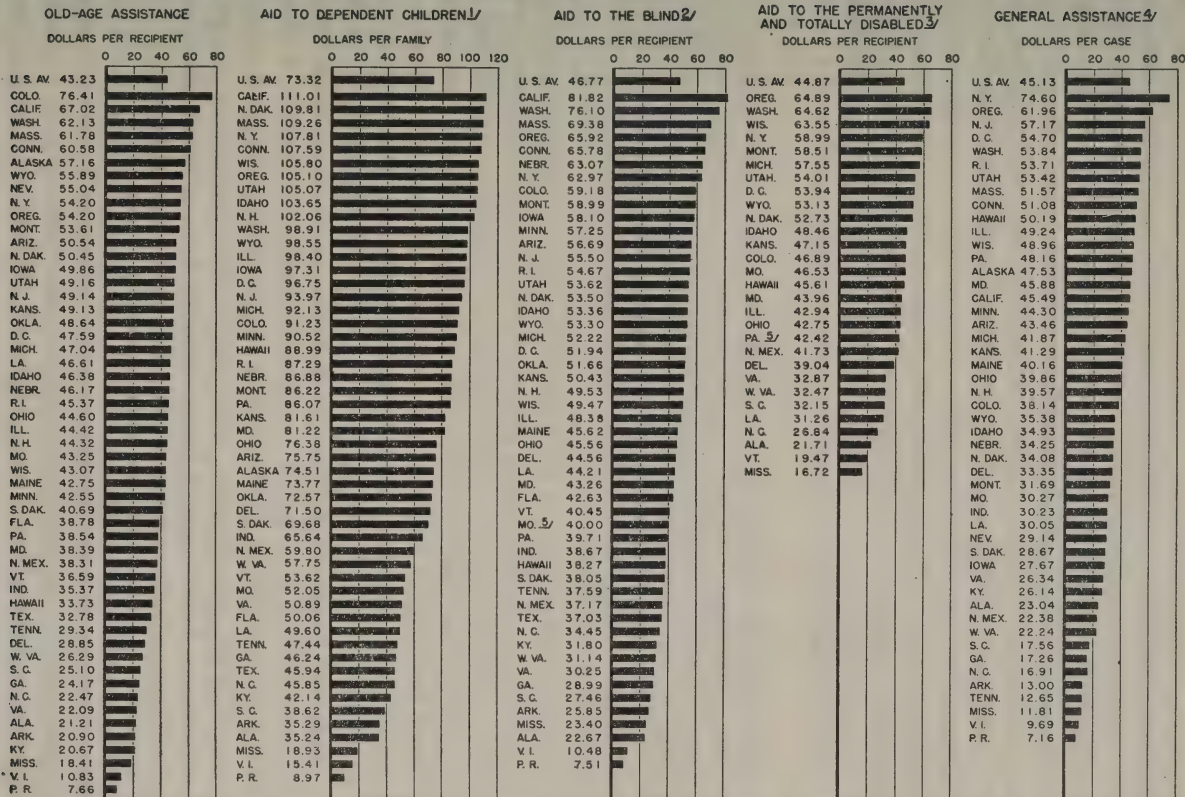
million others were receiving general assistance financed out of State and local funds. These two groups represented about 4 percent of the total population, or about 1 for every 26 persons in the United States. During the fiscal year 1951, the total cost of public assistance payments was \$2.4 billion, of which the Federal share amounted to \$1.1 billion.

For the first time since 1945, the number of assistance recipients and total costs of public assistance payments declined during the year. About half a million fewer persons were being aided in June 1951 than in June 1950. This number represented about an 8-percent decrease, with the sharpest drop in the general assistance program. The decline in expenditures was not so great as in recipients. In fact, payments per recipient were somewhat higher at the end than at the beginning of the year, partly because of the increased maximums in aid to dependent children and the relatively high payments in the new program of aid to the permanently and totally disabled. The upswing in employment due to defense activity and the liberalization of coverage and benefit provisions in old-age and survivors insurance would have reduced assistance expenditures much more had not certain other factors partially counteracted their effect. The continuing rise in the cost of living, the expanded coverage of the public assistance program, and the continuing growth in population, especially in the age groups under 18 and over 65 years of age, all operated to keep expenditures from dropping further.

Old-age assistance.—The old-age assistance case load rose slowly during the first few months, reaching a peak of 2.8 million recipients in September 1950. By June 1951, the case load had fallen by about 65,000. Payments totaled nearly \$1.5 billion for the fiscal year. The national average monthly payment, around \$43, remained fairly constant throughout the year.

Nearly half of all persons dependent on public assistance in June 1951 were aged; they accounted for more than half the annual cost of payments under all the programs. In June 1951, about 214 out of each 1,000 aged persons in the country as a whole received old-age assistance. In many States, however, the proportionate number of individuals receiving aid differed widely from the national rate for reasons related in part to State differences in the relative number of aged persons receiving old-age and survivors insurance. The industrial State of New Jersey, for example, aided only 59 per 1,000 aged while Louisiana, with a large number of agricultural workers not covered by the insurance program, had a rate of 671 per 1,000. Seven States gave assistance to less than a tenth of their aged population; eight States aided more than two-fifths. Variations in payment levels are fairly wide, though not as diverse as are recipient rates. In June

Chart 4.—AVERAGE MONTHLY ASSISTANCE PAYMENT, JUNE 1951

^{1/} NOT COMPUTED FOR NEVADA (LESS THAN 50 FAMILIES).^{2/} ALASKA HAS NO PROGRAM; NOT COMPUTED FOR NEVADA (LESS THAN 50 RECIPIENTS).^{3/} NOT COMPUTED FOR RHODE ISLAND AND

THE VIRGIN ISLANDS (LESS THAN 50 RECIPIENTS).

^{4/} NOT COMPUTED FOR FLORIDA, TEXAS, AND VERMONT (DATA ESTIMATED) NOR FOR OKLAHOMA (COMPLETE DATA NOT AVAILABLE).^{5/} NO FEDERAL PARTICIPATION.

1951, average payments ranged from \$76.41 in Colorado to \$18.41 in Mississippi and \$7.66 in Puerto Rico. (For both Puerto Rico and the Virgin Islands the Federal matching maximums for all programs are lower than for the continental United States.)

Aid to dependent children.—The amendments tended to increase expenditures for aid to dependent children by increasing the maximum payment in which the Federal Government will share and by extending Federal aid to Puerto Rico and the Virgin Islands. In June 1951, 630,000 families with about 1.6 million children received aid to dependent children. In about seven out of eight of these families, the needs of adults were taken into account in determining the amount of the assistance payments. The average payment per family for the month was \$73.32. The total cost of payments for the fiscal year was \$568 million, about \$47 million more than in the preceding year. However, the number of children receiving aid at the end of the fiscal year was approximately 3 percent less than the peak number in August 1950.

At the end of the fiscal year, 33 out of each 1,000 children under 18 years of age, or about 1 child in 30, received aid to dependent children. Among the States, however, the rates varied from less than 20 per 1,000 in 5 States to 75 or more in 2 States. Average payments per family were as low as \$18.93 in Mississippi (\$8.97 in Puerto Rico) and as high as \$111.01 in California.

Aid to the blind.—In June 1951, about 97,000 persons were receiving aid to the blind, at an average payment of about \$47 per recipient. Among the States, the averages ranged from \$81.82 in California to \$22.67 in Alabama (\$7.51 in Puerto Rico). Expenditures during the fiscal year totaled \$54 million.

A study made to determine the probable effect of the amendment which permits States to exempt \$50 a month of earned income in determining need for aid to the blind found that recipients with exemptible income formed less than 6 percent of the total number of blind recipients in September 1950 and that average earnings per worker were roughly \$21 per month. Additional blind workers in the general population, however, will become eligible for aid to the blind as a result of the exemption of part or all of their earned incomes.

Aid to the permanently and totally disabled.—Initially, most of the persons receiving aid to the permanently and totally disabled were transferred to that program from the general assistance rolls. So far, average payments under the new program have been larger than those for old-age assistance but not as large as for aid to the blind. In June 1951, for example, the average payment to permanently and totally disabled recipients amounted to \$44.87, as compared with \$46.77 for aid

to the blind and \$43.23 for old-age assistance. The differences probably result from the greater amount of medical care and special services required by the blind and disabled groups. From October 1950 through June 1951, expenditures in the 30 States with approved plans amounted to \$33 million.

General assistance.—Expanding employment opportunities and the creation of the new program of aid to the permanently and totally disabled significantly reduced case loads and expenditures for general assistance, which is wholly financed from State or local funds or both. In June 1951 general assistance was being given to 333,000 cases, representing approximately 640,000 individuals. The June case load was 37 percent less than in June 1950 and 49 percent below the March 1950 peak. Payments in the fiscal year totaled \$282 million. Fifteen States financed the programs from local funds with no or negligible help from the State treasury.

Administrative Developments

In line with the Bureau's increased emphasis on efficient management and fiscal practices in State public assistance agencies, a new Division of State Administrative and Fiscal Standards was established in September 1950. The Division concentrated on developing fiscal and administrative policies, standards, and procedures in relation to the amendments, to Federal participation in assistance and administrative costs, to procedures to facilitate prompt payment, and to staffing patterns of local agencies. Field consultations were provided State agencies on the use of workload data in preparing appropriation requests for administrative expenditures, installation of a system of classification of public assistance costs, simplifications in the flow of work, organizational structure, disbursement procedures, methods of State-wide financing, and the use of intrastate equalization funds.

Staff of the Bureau assisted in planning and preparing the examinations for Social Worker (Public Welfare Adviser) and Public Welfare Research Analyst held by the Civil Service Commission in November 1950, and in rating the training and experience for the options relating to positions within the Bureau.

The Bureau of Public Assistance and the Children's Bureau participated along with State public assistance agencies in a Nation-wide survey of salaries and education of all social work positions. The survey was made by the Labor Department's Bureau of Labor Statistics, the National Social Welfare Assembly, and the National Council on Social Work Education. The study showed that almost 30,000 of the Nation's 75,000 social workers were employed by State and local public welfare agencies to administer public assistance. The average

yearly salary of public assistance case workers in local welfare departments was \$2,569, and that of supervisors, \$3,380. Less than a fourth had had some study in graduate schools of social work; about 11 percent had had a year or more of professional training.

The job of administering public assistance involves both determining eligibility and administering welfare services to help people back to self-support when possible or at least to caring for themselves in their own homes rather than in institutions. Skill is necessary in working constructively with people under the stress of financial insecurity that frequently results from a serious misfortune—illness, disability, break-up of family, or death. To help persons in times of need requires more than sympathy and kindness, if the individual is to be helped to use both his own resources and the community facilities in his return to independence. Although the skill of helping people is one that usually must be acquired through specialized training, at present only 1 in 9 of the 30,000 persons responsible for administering public assistance throughout the country has had a year or more of such specialized training.

The data from this study indicate the need for more provisions for professional training and salaries commensurate with such training, if expenditures for public assistance are to be utilized most effectively.

The Bureau participated in the Administration's international activities, which are discussed in the early pages of this report. The Director of the Bureau continued to serve as Acting Chairman of the Subcommittee on Social Welfare of the Interdepartmental Committee on International Social Policy, which developed policy statements concerning the United Nations social welfare program, community centers, and study programs in family and child welfare.

The Bureau also took an active part in the Administration's responsibilities growing out of the defense effort, discussed briefly in the early pages.

Public Assistance in a Defense Economy

During the year, questions were raised in some areas about the extent to which public assistance is needed in a period of full employment and high income levels. At a time when all governmental expenditures were being carefully scrutinized in the light of the need for heavy defense spending, concern was expressed at the size of the Federal appropriation for public assistance—one of the largest nondefense items in the Federal budget.

Although the public assistance rolls, including general assistance, decreased by half a million persons between June 1950 and June 1951

as the result of increased job opportunities, higher wages, and the strengthening of the old-age and survivors insurance system, large numbers of people remain in need because they are unable to work and are not covered by any insurance system. The 3 percent of the total population receiving public assistance under federally aided programs in June 1951 included about $2\frac{3}{4}$ million persons aged 65 and over; about $2\frac{1}{4}$ million recipients of aid to dependent children, including children under 18 and the mother or adult caretaker in the family group; about 100,000 blind individuals; and more than 100,000 persons who were totally and permanently disabled. Relatively few of these individuals are able to take advantage of increased job opportunities. As time goes on, the expanded insurance program can be expected to provide income to meet the basic needs of most old people as well as the children of insured workers who die. But today there are still many older people who have not worked in covered jobs long enough to qualify for insurance benefits, or whose benefits are not sufficient to meet their basic needs.

An important factor contributing to the size of the public assistance rolls has been the above-average rate of growth in the size of the age groups in the population from which most assistance recipients come. In the past 10 years the aged have increased about $2\frac{1}{2}$ times as rapidly as the population as a whole, rising from 9 million in 1940 to more than 12 million in 1950. In the next 25 years the present number is expected to double. The child population has also increased tremendously. While the population as a whole increased 14.5 percent between 1940 and 1950, the number of children under age 18 rose about 17 percent and those under 5 went up 55 percent. Thus, today there are relatively fewer people than in 1940 in the producing age groups to be responsible for the support of the aged and the children.

Many people during their working years have never earned enough to meet their families' current expenses and, in addition, to save enough to provide for their old age. This problem of saving is aggravated by today's inflation. Those who thought they had saved enough to provide for their old age now find that their dollar buys only 60 percent as much as in 1939. With small or fixed incomes and rising prices, many aged persons not eligible for old-age and survivors insurance benefits have had to turn for help to their relatives and, when this was not available, to apply for old-age assistance.

The traditional expectation that members of families will help each other may not have changed, but economic and social conditions have changed so drastically that substantial continuing aid from one member of a family to another is, in most instances, increasingly difficult. Although more than three-fourths of the States have "relatives' re-

sponsibility" laws that require children to support their aged parents, these laws differ widely in their scope, their interpretation, and the extent to which they are enforced. The trend in some States toward less strict requirements of support by relatives reflects the profound social changes that have been evolving as we have become a more industrialized society—the higher cost and rising standard of living, the looser family ties as a result of the smaller family unit with smaller living quarters and the separation of various members of the family in different parts of the country, and the urge of families just getting an economic foothold to attain the higher standard of living common in their communities.

A major factor in the size of the aid to dependent children program has been the substantial increase since the war in both the number of families and children and the number of broken homes due to divorce and separation. Divorce and illegitimacy rose to all-time peaks in 1947. Broken families and those in which the wage earner is disabled or dead do not usually have much opportunity to share in our current prosperity. In 1949, a third of the children living with a mother only were in families with an annual money income of less than \$1,000, including the money received from assistance.

The Social Security Act commits the Nation to forestall dependency, insofar as possible, through social insurance, supplemented by public assistance to meet noninsured need. The virtually unanimous congressional vote for the social security amendments in 1950 indicates that this policy has wide public support. However, various suggestions have been made to limit coverage of public assistance in an effort to reduce its cost.

Aid to dependent children is intended to provide necessary economic support and services to enable children deprived of parental support to grow up in a setting of their own family relationships. With the expansion and liberalization of old-age and survivors insurance, many children who had been receiving aid to dependent children and whose fathers have died can now receive insurance benefits. This development left on the assistance rolls many children dependent because of the incapacity or estrangement of their parents. Since the program provides for the basic needs of children, some of whom have been deserted or born out of wedlock, it understandably gets involved in the public criticism of the behavior of parents that brought about the children's needs. Nobody wants children to suffer, yet the children's needs sometimes are made secondary to the desire to censure the parent's behavior, and the value of public assistance in holding the family together is overlooked. Proposed restrictions on the program to make certain children ineligible do not solve the basic prob-

lem, of which dependency is only a manifestation. To deprive a needy child of assistance because of his parent's actions often creates still more serious problems unless another program for care is substituted. In fact, the hidden costs to society might well pyramid in the added burdens of subsequent physical disability, mental breakdown, delinquency, and crime resulting from continuing neglect.

The 1939 amendments to the Social Security Act required safeguards that restrict the use or disclosure of information concerning applicants and recipients to purposes directly connected with the administration of public assistance. This provision was designed to prevent the use of such information for political and commercial purposes and was intended to protect needy recipients from unnecessary humiliation, as well as to facilitate effective administration by protecting information relating to eligibility given the agency in confidence by both applicants and others.

Various individuals and groups have made proposals to publish the names of recipients and the amount of their assistance payments as a means of reducing assistance rolls. The resulting publicity, it is argued, would expose ineligible persons, and the desire to avoid such publicity would encourage those who could work to get jobs and would induce relatives to support needy members of their family. Legislative action was taken in four States in the fiscal year 1951 directed toward making information about assistance recipients public. Florida's law was vetoed by the Governor, the Alabama law was not to be made effective if it was inconsistent with the Social Security Act, and the Illinois law was to be effective only if this provision in the Social Security Act were changed. The Indiana law was made effective in July and Federal funds to the State were discontinued, since the amended law was in conflict with a provision of the Social Security Act necessary for approval of a State plan. The ruling to discontinue Federal funds in this instance was upheld by the United States District Court of the District of Columbia. Legislation enacted by Congress in October 1951 authorized the Federal Security Administrator to certify grants-in-aid to States which have by legislation specified the conditions under which public access may be had to records of the disbursement of funds if such legislation specifies that information so obtained should not be used for political or commercial purposes.

The Bureau and the State public welfare agencies have been giving careful study to the various proposals for reducing the cost of assistance. All suggestions are being evaluated in terms of their probable effectiveness in reducing costs without working undue hardship on needy individuals, or creating additional problems with which the community will have to deal later.

Efforts to keep public assistance costs to a minimum must be part of a broad socially constructive program. In matters of physical health it has long been recognized that, though immediate ills must be treated, the best, and in the long run the least costly, cure is prevention. Public assistance is an essential treatment for the acute ills of want and dependency. At the least, it can prevent the ultimate disaster of destitution for the individual and the community. Public assistance also provides a chance to bring rehabilitation services into play to help families achieve self-support. But the program alone cannot solve many of the problems that make it necessary for people to seek public assistance. To reduce the causes of dependency, we need not only a comprehensive social insurance program and other necessary income-maintenance measures, such as public assistance, to meet residual noninsurable need, but also a community-wide approach, utilizing all available resources, in dealing with the inter-related problems of everyday living that lead to dependency in a complex industrial society.

Improving Public Assistance

Despite the 1950 amendments to the Social Security Act, the goal of assuring income to meet the basic needs of individuals and families affected by common hazards is still far from complete. Old-age and survivors insurance benefits, even though increased, are not sufficient to meet the basic needs of many aged persons with little or no other income or savings, or those whose medical needs are costly. Social insurance does not yet include all employed persons or provide broad protection against the economic risks of illness or disability. Nor does it cover certain contingencies, such as the dependency of children resulting from desertion, nonsupport, or illegitimacy.

A broadened social insurance program would, in the long run, substantially reduce the number of persons dependent upon public assistance for their basic maintenance. The need for an assistance program would continue, however, even though the number of persons dependent upon it would become fewer. To make the public assistance program more effective in filling its primary objective, the Social Security Administration urges that careful consideration be given to the following additional changes.

FEDERAL AID FOR GENERAL ASSISTANCE

The new program for aid to the permanently and totally disabled, while helping some people who were formerly dependent on general assistance, does not provide a substitute for a federally aided general

assistance program. Federal grants-in-aid under the program for the disabled will not help States to finance necessary assistance to needy persons who are able-bodied and unemployed but not receiving unemployment insurance or who are suffering from a disease or loss that is not permanent or total in nature, or to handicapped persons who are temporarily unemployed. Many States, moreover, do not have the funds to provide necessary assistance to all those who need it. The Social Security Administration, therefore, continues to recommend, as it has in the past, that Federal aid be made available to States for general assistance, in order that the public assistance program under the Social Security Act be broadened to meet the minimum requirements, not otherwise met, of all needy persons.

FINANCING MEDICAL CARE

The amendments gave States more flexibility in the method of paying for medical care by extending Federal financial participation to payments made to the suppliers of such services. However, Federal matching of the total amount spent for maintenance and medical care is still limited to the existing maximum in the individual case (\$50 a month in the aged, blind, or disabled programs, and, in aid to dependent children, \$27 a month for the needy responsible adult and for the first dependent child and \$18 for the second child and succeeding children). Expenditures made by a State in excess of those maximums must be met from State or State and local funds. As a result, States in which most assistance payments are already close to or above the matching maximums can receive very little or no additional Federal money toward meeting costs of medical care.

Assistance payments vary considerably within a State, ranging from very low supplementary payments to recipients with other income up to relatively high payments to recipients who have no other income and whose need for medical services results in payments considerably above the present matching maximums. Present provisions for Federal financial participation in assistance payments do not meet the unpredictable costs of essential medical care in individual cases. However, if Federal participation could be related to an average amount per recipient (even if this average were limited to the present maximums) rather than to the amount of the individual payment within the maximums, more Federal money could be made available to help States meet the actual costs of both maintenance and medical care. Under such an arrangement, all expenditures made by the State for both maintenance and medical care in individual cases would be included in computing the average payment per recipient,

and the Federal share would be limited to an amount not exceeding the maximum multiplied by the number of recipients. Thus, States could balance low payments made to recipients with some income against higher payments to recipients whose need for medical services is considerably above the present maximums on individual payments. If the resulting average payment per recipient were below the specified Federal maximum for the program, the Federal Government would share in the total costs; if it were above the maximum, Federal funds would be available only up to the maximum.

Another alternative would be to provide Federal participation in payments for medical care, based on an average amount per recipient up to a specified maximum, and determined separately from, and in addition to, payments for maintenance.

The Social Security Administration therefore recommends that the present individual maximums on Federal matching funds be changed to an average amount per recipient, or, alternatively, that the Federal share in payments for medical care up to a specified maximum be determined separately from, and in addition to, payments for maintenance.

EQUALIZING GRANTS

The current formula that governs Federal participation in State assistance expenditures does not permit recognition of the variation in economic resources among the States. States with low per capita income are not only limited in the tax revenue they can raise but also have a relatively high proportion of people who need public aid. A matching formula could be used that would give low-income States additional funds to operate an effective assistance program without unduly increasing the total Federal expenditure. The Social Security Administration again recommends that the formula governing the Federal share of assistance expenditures be changed so as to provide for a more equitable distribution of Federal funds, taking into account the fiscal ability of the various States and their public assistance needs.

RESIDENCE AND CITIZENSHIP REQUIREMENTS

Most States require public assistance applicants to have lived in the State for a certain length of time in order to get assistance. Some States provide public assistance only to citizens of the United States. The Social Security Act does not include, but does not prohibit States from imposing, these restrictions; it merely limits the extent to which such restrictions can be imposed.

The mobility of the American population has contributed greatly to the economic progress of the Nation and is essential in periods of extensive defense activity. State residence and citizenship require-

ments, although considerably less restrictive than in earlier years, still work hardship and prevent needy and otherwise eligible persons from obtaining public aid. Since residence requirements represent an interstate problem, funds made available through Federal grants to States should be provided to needy people otherwise eligible, even though they do not meet the qualifications of residence established by individual States. The Social Security Administration recommends that residence and citizenship requirements be prohibited in State public assistance programs approved under the Social Security Act.

SEPARATE FINANCING OF ADULT AND FAMILY WELFARE SERVICES

Family welfare services can be made available under the present law to applicants and recipients of assistance as a part of the cost of administration which the Federal Government now shares with the States. In times of crises such as the present defense emergency situation, when family life is under pressure from all sides, many individuals and families, even though not in need of financial assistance, need family welfare services, such as information, referral, homemaker service, and counsel on health and other social problems. The local public welfare departments are in a strategic position to supplement the services available from voluntary groups, where they exist, and to supply such services in localities where there are no voluntary agencies. Adult and family welfare services would help to prevent subsequent dependency and other difficulties resulting from inability to cope with personal and family welfare problems. The Social Security Administration recommends that a separate Federal grant be made available for adult and family welfare services to those who require and desire such services, regardless of their financial need.

EXPANSION OF AID TO PUERTO RICO AND THE VIRGIN ISLANDS

Federal participation in the public assistance programs in Puerto Rico and the Virgin Islands is limited to maximums on the individual payment, and a limit is also placed on the total amount of Federal funds that can be expended within a year. The maximums set are the same as those that had been established in the 1935 Social Security Act; those maximums were raised by the 1939 and subsequent amendments. The economy of Puerto Rico and the Virgin Islands presents some of the same fiscal problems experienced by low-income States when they operated under the 1935 formula. As additional eligible applicants are included in the islands' programs, the amount of payment to a recipient will have to be reduced to little more than it was before Federal aid was available. The Social Security Administration recommends that Federal financial participation in public assistance programs in Puerto Rico and the Virgin Islands be put on the same basis as that for all other jurisdictions.

Children's Bureau

A fair chance for every child was declared by the first Chief of the Children's Bureau, Julia C. Lathrop, to be the goal toward which the newly established Bureau would direct its efforts, collaborating with all concerned with the welfare of children and child life.

The mental, emotional, and spiritual development of the child, closely related to his physical vitality, is now becoming a focus of major concern. Obviously, all professions concerned with child life and child development must contribute to an integrated knowledge of ways of assuring healthy personality development. The Children's Bureau was created in the belief that what is now called an "interdisciplinary" approach to the problems of children was essential, and we are witnessing renewed appreciation of the validity and necessity of this approach.

Our Nation's Children

The decennial census of 1950 has given us a fresh base for measuring the number of children and young people. In 1950 they totaled 47 million under age 18, the largest number in our history. Since 1940 the number under 5 increased 55 percent, as compared with a 15 percent increase for the total population. From the postwar peak of 25.5 in 1947, the birth rate dropped about 9 percent to 23.5 (estimated) in 1950. The first increase in the marriage rate since 1946 occurred in 1950 after the outbreak of hostilities in Korea, and was followed by a rise in the birth rate in the first part of 1951. The urban birth rate increased at a faster pace than the rural birth rate from 1940 to 1949 with the result that the urban and rural rates were about the same in the latter year.

The Nation had 39 million families in 1950, 7 million more than in 1940. Families with 3 or more children comprised 15 percent of the 39 million and had 52 percent of the children under 18 years.

In 1949, one-half the children of the United States lived in families with incomes of less than \$3,080 a year. One-fourth were in families with incomes under \$2,000. The families of the 3 million children living with only 1 parent had an average income of \$1,597, half the average income of the families of the 39 million children living with both parents (\$3,174). The recent increases in aid to dependent children and in payments for surviving children of insured workers under the old-age and survivors insurance program, described elsewhere in this report, will be of material benefit to many of these broken families. Although incomes have risen more than

the cost of living during the past two decades, the sharp rise in prices after 1945 has meant that family income in terms of buying power has decreased in the postwar years.

About 1 million children—truly the Nation's disadvantaged children—are in families of migrant agricultural workers.

In 1950, 1 out of 5 mothers with children under 18 years of age—4.6 million mothers—worked outside the home. Of these mothers, 1.7 million had children under 6 years. About 6 million children under 18 years were in homes in which both parents worked. The mothers of one-sixth of all children living with both parents were employed; the mothers of half the children in broken families were at work.

In 1950 there were $2\frac{1}{2}$ million dwelling units which had more than $1\frac{1}{2}$ persons per room (a standard commonly used to measure severe overcrowding), and one-third of all dwelling units were either dilapidated or without adequate plumbing facilities. In some communities affected by defense activities, children have had to be placed in temporary foster care because parents were unable to find housing for the family at prices they could afford.

Maternal deaths were 7.2 per 10,000 live births in 1950 (provisional), a reduction of 79 percent since 1940. Despite this improvement, the mortality rate of Negro, Indian, and other nonwhite mothers (18.4) continued to be more than 3 times that of white mothers (5.5). Infant deaths per 1,000 live births dropped from 47.0 in 1940 to 29.2 (provisional) in 1950—a cut of 38 percent. Of all deaths under 1 year in 1949, more than half were due to causes peculiar to early infancy, and of these deaths approximately two-thirds were associated with premature birth.

Childhood deaths have also been reduced sharply. The 1949 rate of 9.2 deaths per 10,000 children aged 1–14 years represents a decrease of 41 percent since 1940, when the rate was 15.5.

The number of children ill with communicable diseases can be further reduced by improving and extending immunization programs. As antibiotics and sulfa drugs become more readily available for children with diseases like pneumonia and streptococcus infections, such illnesses can be shortened and the risk of secondary complications can be greatly reduced.

New drugs can control epilepsy effectively enough to enable most children suffering from this condition to lead nearly normal lives. Many children with congenital cardiac defects can now be operated upon to eliminate or reduce the resulting disability.

Dental caries can be reduced very substantially by introducing fluorides into drinking water or by applying certain fluoride solutions directly to children's teeth. Hearing deficiencies, which sometimes

account for poor school progress and inadequate speech development, have recently been studied. Though less than 1 child in 100 suffers enough hearing loss to be gravely handicapped, nearly 1 in 20 shows sufficient hearing loss to need observation and possible treatment. Recent studies of visual defects in the grade schools of St. Louis have indicated that approximately one-fourth of all school children need some correction or medical care for eye conditions.

Between 1943 and 1949, annual reports from 363 juvenile courts in 17 States showed an increase of 4 percent in juvenile delinquency cases, a reversal of the downward trend that started after World War II. Although many States have laws prohibiting jail detention of children, the 1949 reports showed that, of the children held overnight or longer in delinquency cases, 25 percent were detained in jails, usually because suitable detention facilities were lacking.

During the year, evidences of increased tension, insecurity, and uncertainty as to what the future may hold were noted among children and young people. People working with children have observed, in some areas, that school activities related to civil defense, such as bomb drills, have a disturbing effect on some children, who develop fears that parents do not know how to handle.

Widespread publicity concerning the grave problems of drug addiction in young people, particularly in certain large cities, has shocked the public into serious consideration of the ways in which this evil can be attacked.

The White House Conference

The meetings of the Midcentury Conference in December 1950 constituted one of the high points in work for children in the last 50 years. The activities of more than 100,000 citizens, working 2 years in preparation for the meetings through State and local White House Conference Committees and 464 national organizations and youth groups, contributed to making this the most significant of the White House Conferences on Children since the first one, called in 1909. Nearly 6,000 persons attended the meetings which were addressed by the President of the United States, distinguished citizen leaders, and eminent specialists in the field of child care. Through work groups and discussions, the conference arrived at some 67 major recommendations which constitute a platform for action for all concerned with the well-being of children and youth.

A citizens' committee, the National Midcentury Committee for Children and Youth, has been organized to give leadership in the follow-up program.

The Bureau at Work

Funds available to the Children's Bureau in 1951 for its activities, excluding international cooperation financed by the Department of State and the special expenses connected with the Midcentury Conference, were \$1.5 million for its own activities and \$30,250,000 for grants to States under the Social Security Act.

Special emphasis during the year was placed on (1) the Midcentury Conference; (2) laying the foundation, through cooperative planning with the States and with representatives of voluntary agencies, for the expanded programs made possible by increased grants authorized by the 1950 amendments to the Social Security Act; (3) improving, through Bureau-wide planning, the quality of service given by the staff; (4) assessing the impact on children and young people of mobilization and preparations for defense; and (5) extending international cooperation activities.

INCREASING KNOWLEDGE AND DISSEMINATING INFORMATION

The Bureau resources for basic research, carried on under the act of 1912, are limited, but the Bureau serves as a center of information about research under way throughout the country; participates in a few selected research undertakings of strategic importance; points up, with the aid of experts in various fields, the areas in which research is most needed; and interprets the results of research to parents and others concerned with children.

Supplements to the Bureau's bulletin, *Current Research in Child Life*, reported 803 new studies under way. Fully one-third of these are concerned with physical health and disease, and about one-fourth are in the field of psychology. Many of the social service studies reported are of the survey type.

The Bureau in cooperation with Fisk University launched a research project to study cultural differences in child rearing. Plans for a similar study, which will make regional comparisons possible, were initiated with the Institute of Child Welfare at the University of Minnesota. The Bureau reviewed materials on retrolental fibroplasia and accidental suffocation of infants as a basis for encouraging research in these fields. A plan to evaluate the relation of mortality of premature infants to special hospital facilities for their care was developed, and a pilot study was started with the Maryland Department of Health to test the plan.

A system for uniform tabulation of births and deaths resulting from prematurity, developed by the Public Health Conference on Records and Statistics with the aid of the Bureau and the Public Health Service, was put in operation by the State health agencies.

With the Bureau of Public Assistance and the Bureau of Labor Statistics (Department of Labor), the Bureau participated in a study of salaries, working conditions, and educational background of social work staff in all public welfare agencies. This study showed that of the Nation's estimated 75,000 social workers in 1950, 62 percent were employed by State, county, and other local governments, 35 percent by private agencies, and 3 percent by the Federal Government. Of more than 4,100 social workers employed primarily in public child welfare programs, the study showed that 20 percent had had 2 or more years of graduate study in schools of social work and another 40 percent had had some specialized training in such schools. The median salary reported for child welfare case workers was \$2,712 and for supervisors, \$3,595.

Almost 1.7 million copies of the 1944 edition of *Infant Care* were distributed by the Bureau or sold by the Superintendent of Documents. The corresponding figure for the Bureau's other bulletins for parents was 1,284,315. *Infant Care* was completely rewritten and submitted for review and suggestions to parents, Bureau staff, and 45 specialists representing a wide range of professions. The new edition was issued in October 1951.

COOPERATION WITH STATES

The 1950 amendments to the Social Security Act authorized \$37 million for the fiscal year 1951 for grants to the States for child health and welfare programs. Because the amendments came into effect after the first quarter of the fiscal year, only \$30,250,000 was appropriated: \$13,200,000 for maternal and child health services; \$9,975,000 for crippled children's services; and \$7,075,000 for child welfare services. All States, the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands shared in these grants. Federal participation in the program of the Arizona crippled children's agency was suspended throughout the fiscal year because of failure to reach an agreement on extending treatment services to Indian children.

Children served.—Statistics on volume of health services relate to the calendar year 1950 and reflect only slightly the expansion made possible by the Social Security Act amendments.

Services for mothers and children under the State maternal and child health programs continued their upward trend. These services are aimed primarily at providing health supervision—with a limited amount of medical and dental treatment—to expectant mothers, infants, and preschool and school children. State reports on medical services show that 171,000 mothers attended prenatal clinics, an increase of 3,000 over the 1949 total; more than 59,000 women were given postpartum medical examinations, an increase of 6 percent; and

more than 258,000 expectant mothers received nursing service, an increase of 7 percent. Infants and preschool children attending medical conferences increased 4 percent, to 723,000, but there was a decline of 3 percent, to 1,100,000, in the number receiving public health nursing service. On the other hand, nursing visits in behalf of school children increased 8 percent to a total of 2,894,000.

Preliminary estimates on crippled children served in 1950, based on reports from 46 States, showed that approximately 215,000 children received physicians' and related services during the year, or 35,000 more than were so served in 1949, an increase of 18 percent. Some two-fifths of these children were new to the program. The types of service they received include clinic service, hospital in-patient care, convalescent home care, and physicians' home and office visits. Some 40,000 children received hospital in-patient care, slightly more than in the preceding peak year of 1949. Care in hospitals was provided for 1,450,000 days, and the average length of stay per child was about 36 days. More than 5,000 children, slightly fewer than in 1949, received care in convalescent homes for an average of about 94 days each.

More than 250,000 children were receiving services from public welfare agencies under the program for child welfare services on March 31, 1951, about 3 percent more than on the same date in 1950. Most of these services are being financed by State and local funds.

For the first time the Children's Bureau received data on numbers of children receiving service from both public and private case-work agencies with specialized programs for children. In 37 jurisdictions furnishing substantially complete reports, more than 200,000 were receiving such service as of June 30, 1950, 73 percent from public and 27 percent from private agencies. Almost half of the children served by public agencies, and about a fourth of those served by private agencies, were living in the homes of parents or other relatives.

Types of service.—During the year, data on public health personnel, facilities, and services in 1949 were released by the Public Health Service, based on reports obtained jointly by that Service and the Children's Bureau. The data came from 1,242 full-time local health jurisdictions, all but a few of which were receiving State or Federal aid. The report showed that 4,223 centers were holding well-child conferences at least monthly under the direction of a physician, as compared with 3,417 in 1948. Nearly 90 percent of the centers conducting such conferences in 1949 were under the auspices of local health departments.

In all, 4,146 full-time child welfare workers were employed by public welfare agencies in June 1950, an increase of 8 percent over the previous year's total. Forty-two percent of the counties had full-time child welfare personnel serving one or more counties. The other

counties had either part-time child welfare service from general public welfare workers or no public welfare service for children.

Program developments.—The increase of 37 percent in the Federal funds for grants made it possible for the States to expand their programs into additional communities and, to some extent, into new areas of service. The extent of these advances was limited by rising costs of personal services, hospital care, and other items.

The amendments also included two new child welfare provisions. The first authorized aid for the return of children under 16 who have run away from home to another State "in cases in which such return is in the interests of the child and the cost thereof cannot otherwise be met." The second provides that in developing public child welfare services "the facilities and experience of voluntary agencies shall be utilized in accordance with child care programs and arrangements in the States and local communities as may be authorized by the State."

To develop policies for program revisions and expansion of service, the Bureau held four regional conferences in the fall of 1950 in Atlanta, New York, Chicago, and Denver with State health and crippled children's agencies and State welfare agencies. Representatives of juvenile courts, training schools for juvenile delinquents, and voluntary children's agencies also participated. At each conference, community planning and citizen responsibility for children's services were emphasized. The regional meetings were followed by a conference in Washington of representatives of national voluntary agencies concerned with providing services for children in the welfare field.

After these meetings the Bureau issued a policy manual for the use of Federal funds for child welfare services.

Several States have set up or improved special hospital centers to provide better care for premature infants and to have suitable training centers available for physicians and nurses. The use of fluorides to help prevent dental decay received great impetus in maternal and child health programs. Other programs that are expanding slowly are medical care for complicated obstetrical cases, pediatric clinics, and pediatric and obstetric consultation services. Considerable interest in school health programs is developing. Preliminary reports of a demonstration school health program in Washington County, Md., based on screening by teachers and nurses and careful diagnostic and corrective services for children found to need such service, and carried on in cooperation with medical groups and hospitals, indicate great potentialities for influencing school health practices throughout the country. A staff conference held by the Children's Bureau, the Office of Education, and the Public Health Service resulted in a statement on recommended practices and priorities for health services for children of school age.

A number of States increased appropriations for their crippled children's programs by 10 to 30 percent; others made special appropriations for such programs as cerebral palsy and for hospital or convalescent facilities for crippled children. Several States broadened their definitions of a crippled child to include children with epilepsy, and began to develop diagnostic and treatment facilities for such children. An epilepsy demonstration program in Maryland, started at the beginning of the fiscal year, made rapid progress toward becoming a State-wide service. Services for children with cerebral palsy continued a major concern of State crippled children's agencies. Some States established additional cerebral palsy centers and clinics during the year.

Practically every State has taken steps to employ more child welfare workers in rural areas. Twenty States have budgeted some Federal funds for foster family care of children for whom adequate resources could not otherwise be provided. Salary scales have been raised for child welfare staff in most States. Several States are employing more supervisory personnel to give better and more consistent help to local workers. A number of States have added special consultants on training, adoption, licensing, institutions, detention service, and day care. Four States have included group work personnel in their child welfare programs, and five have employed community organization consultants.

Training programs.—In January an advisory committee including educators and State health personnel from various professional fields related to health services for mothers and children met with the Bureau. The committee recommended that the Bureau, in considering the use of grant funds for training projects, give priority to the training of physicians in the public health aspects of maternal and child care and in the concepts of child development to prepare them for leadership as teachers and consultants. Among the training projects conducted this year with the aid of Federal funds were an institute on the public health aspects of rheumatic fever and heart disease in Connecticut, a joint training program for physicians and nurses on the care of premature infants in New York, and a cleft palate training program in Illinois. Plans for training programs in epilepsy in Illinois and Massachusetts were approved. Conferences were held with directors of courses for the graduate training of nutritionists and with staff of university schools of nursing on preparation for work in public health programs. An institute on medical-social practice was held for medical-social consultants from a number of States.

In child welfare services, many States have strengthened their on-the-job training programs. Interest in social work education has been heightened by the study made under the auspices of the National

Council of Social Work Education, which will doubtless stimulate many changes in the curriculum of schools of social work. Public child welfare agencies are increasingly offering field-work opportunities to schools of social work.

Evaluation of local programs.—A small conference was called by the Children's Bureau in December 1950 to obtain the advice of experts on the problems involved in setting up critical evaluation studies of various phases of the maternal and child health and crippled children's programs. The conference outlined program areas in these fields in which studies are especially needed.

In the social service field, both public and voluntary agencies are showing increasing interest in evaluating the effectiveness of their services and learning how well the needs of children are being met in their communities. A consultant on the Bureau staff helps States and local communities in these projects.

WHITE HOUSE CONFERENCE AND INTERDEPARTMENTAL COMMITTEE ACTIVITIES

The staff of the Children's Bureau participated in the preliminary fact-finding work of the White House Conference and, through its regional personnel, in developing associated State activities. The Bureau also helped staff the conference meetings and is assisting in the follow-up program.

The National Commission on Children and Youth, associated with the Children's Bureau since 1946, has been dissolved after 5 years of valuable leadership in planning programs for children and youth throughout the Nation. The Commission initiated the proposal for the Midcentury White House Conference. Its decision not to continue was reached because of the formation of the National Midcentury Committee for Children and Youth, which will provide leadership for the follow-up program of the conference.

The Interdepartmental Committee on Children and Youth, formed in 1948 at the request of the President, made significant progress during the year in developing closer relationships among Federal agencies, in preparing reports of value to Federal agencies and the public, and in serving as a medium for Federal cooperation in the White House Conference and its follow-up program. The Committee issued two reports, *The Needs of Children of Puerto Rico* and *Programs of the Federal Government Affecting Children and Youth*.

MOBILIZATION AND DEFENSE ACTIVITIES

The Bureau participated, along with the Administration's other program Bureaus, in responsibilities growing out of the defense effort. The Bureau evaluated the prospective need for services for mothers

and children in the Savannah River and Paducah areas; assisted in planning policies and procedures for assuring supplies and materials for children's agencies and institutions; and provided technical assistance to the Federal Civil Defense Administration in the development of its basic policies and the preparation of technical material bearing on services that will be needed for mothers and children in case of enemy attack.

In addition, groups and individuals consulted the Bureau in the course of the year about the need for special health and medical services for the wives and infants of men in the Armed Forces. During World War II the Bureau had administered a special emergency maternity and infant care program under which funds were made available to State health agencies to provide maternity care for wives and health supervision and medical care for infants of enlisted men in the Armed Forces. Exploratory consultations held during the year with persons connected with the medical profession, hospitals, and other interested groups resulted in a statement of principles to be considered in proposals that might be made for a similar maternity and infant care program.

In anticipation of efforts to recruit mothers into the labor market to help meet shortages in defense production, the Children's Bureau and the Office of Education jointly sponsored a conference on day care and extended school services. Findings of this conference, held January 16-17, have been widely used in States and local communities.

The Bureau also worked closely with voluntary agencies and organizations in their planning for services to families and children in communities affected by mobilization.

SHARING EXPERIENCE WITH OTHER COUNTRIES

The Bureau participated in international work for children through sharing in the development of United States positions on social issues to be considered by international bodies; through the service of its chief on the Executive Board of the United Nations International Children's Emergency Fund and as vice chairman of the Directing Council of the American International Institute for the Protection of Childhood; through providing information to the United Nations and its specialized agencies; through recommending professional experts to serve as members of international missions; and through distribution abroad of its publications for parents, translated into other languages by the Department of State.

Early in the year, the Bureau's program of cooperation with other countries, carried on since 1941 under the sponsorship of the Department of State, became a part of the newly authorized Point Four program for technical assistance to economically underdeveloped areas.

Bureau staff consultants served during the year in Brazil, Bolivia, Cuba, Chile, Ecuador, India, Mexico, Peru, and Portugal. Brief visits were made to Argentina, Paraguay, and Uruguay. The fields of work in these countries included maternal and child health, child welfare, medical-social work, social group work, and training for child welfare work in schools of social work. New projects were developed for cooperative service to Lebanon, Iraq, and Pakistan. An important part of this program was planning courses of study in the United States for eight specialists awarded training grants and for 110 trainees and 131 visitors from other countries.

Making Further Progress Toward Our Goals

It is more important than ever before that all children be given maximum opportunity to develop the inner resources, the knowledge, and the capacities for responsible living that will enable them to fulfill the mission of their generation. To achieve this goal requires the cooperation of parents, individual citizens, scientific and professional personnel, young people themselves, and all social institutions, with the fullest possible utilization of voluntary and official resources.

Some of the major ways in which we need to strengthen and coordinate our efforts in behalf of children and youth and push out to new frontiers follow.

FOR ALL CHILDREN

Increasing knowledge.—In bringing together much of what we know about the development of healthy personality in children, the Mid-century White House Conference revealed the great gaps in our knowledge, and the need to verify through objective research much that we now assume to be true. Some of the areas in which additional research is needed are the fetal period of growth and the role of nutrition in this period; the relative importance of early and later stages of child development; ways in which children react to differences among children within their own age groups; the interrelation of organic needs, such as feeding, and emotional development; the functioning of the family in relation to economic practices—for example, the employment of mothers; child development in different cultures; the wastage of human life from high infant and maternal mortality which continues in many localities in the United States; and methods of measuring the effectiveness of child health and welfare programs. Intensive research on the period of adolescence is particularly important. Studies should be encouraged as to ways in which the energies and capacities of youth may be used to strengthen their own sense

of personal worth and their cooperation in meeting social needs. We must explore more fully how the various professions can effectively combine their services to meet the needs of children and families.

Study is especially needed of the care of premature infants; methods of well-child supervision; screening techniques and personnel to be used for screening to determine the children in special need of health services; the effectiveness of various programs for restoring children to maximum health; and programs of day care, foster home care, and group care of adolescents. The service given by the Children's Bureau to State health and welfare agencies in methods of evaluating their programs and of conducting local studies should be expanded.

The authority of the Bureau, under its basic act, to investigate and report "upon all matters pertaining to the welfare of children and child life" does not include provision for grants to research centers under both public and private auspices and for research fellowships. The Bureau needs greater resources for research that can best be conducted on a Nation-wide basis. Private foundations and research centers should also put increasing emphasis on research in child life.

Putting present knowledge to work.—Although there is much that we do not know about child and youth development, we know far more than we put effectively to use. Improvement in the degree to which scientific developments can be made use of requires an enlarged sense of citizen responsibility, the development of more adequate means for community planning, and wider participation of citizens in the formation of policies governing administration of community services. It also requires expanded financial resources, both public and voluntary, and improved methods of administration.

Focusing community attention on children.—Only as individual citizens take responsibility for identifying local needs of children and youth and for ascertaining what is being done and what needs to be done to meet them can they come to know and understand the services available and be able to use them more fully and constructively. Community planning also helps to bring together the combined resources of the various professions and institutions dealing with children and youth. The participation of young people themselves in such planning is of great importance.

The great impetus given to State and community planning for children through the State and local committees working in connection with the Midcentury Conference should be continued and intensified during the follow-up period. The movement already de-

veloping in some States toward permanent, legally constituted commissions to plan for children promises a means of focusing public attention and the efforts of official and voluntary agencies and professional groups on service to the growing child. The National Mid-century Committee for Children and Youth should provide for an interchange of experience among the States and encourage comprehensive State and local programs.

Extending health and social services.—The 1950 amendments to the Social Security Act authorized appropriations for the fiscal year 1952 and thereafter of \$41.5 million annually—\$16.5 million for maternal and child health services, \$15 million for crippled children's services, and \$10 million for child welfare services. Appropriation of the full amounts authorized is urgent to provide needed expansion of programs and to meet rising costs of service. Continued and increased emphasis should be placed on the relationship of these programs to those conducted under voluntary auspices and on the leadership of national voluntary organizations in developing both public and private programs.

Because of the great opportunities for improving the health of school-age children through the combined efforts of the schools and the health agencies, additional Federal aid is needed to expand health programs for these children. Emphasis in school health work should be shifted from mass medical and dental examinations to more constructive methods of screening out the children who have health problems and assuring for them adequate medical diagnosis and treatment.

Expanding and improving programs for training personnel.—Professional training for all personnel who will serve children—physicians, dentists, nurses, teachers, nutritionists, psychologists, social workers, and recreation leaders—should include a common core of knowledge of the development of personality in children. Expansion of training programs in the child health field is urgent, and priority should be given to training physicians in the public health aspects of maternal and child care and in the growth and development of children. The report of the recent study of social work education should be followed up by both administrative agencies and schools of social work to improve professional education in this field.

Maintaining essential services for children.—Draft deferment and other manpower policies related to mobilization should respect the importance of reserving personnel for services that are essential to the health, welfare, and emotional stability of children and adolescents.

Increased interagency cooperation.—The work of the Interdepartmental Committee on Children and Youth should be continued with greater emphasis on the role Federal agencies can play in encouraging coordinated effort for children in States and local communities and on the development of wider citizen participation in planning such efforts.

Programs of international cooperation should be focused on the mutual benefit that can be derived from exchange of experience among countries. We have much to learn from other countries concerning ways by which children are given maximum emotional security in home life; the means of supplementing the often inadequate earnings of the family breadwinner, such as children's allowances; and methods of organizing community services.

FOR CHILDREN IN AREAS WITH PARTICULAR PROBLEMS

In rural areas with limited economic and social resources.—Special effort should be made to bring together in behalf of rural children the resources of agricultural and home economics extension services, of health, education, and welfare agencies, of rural churches, and of voluntary agencies. Work needs to be done in developing self-help projects that rural communities with relatively limited resources can undertake to meet the needs of their own children. The possibilities of rural areas combining to share professional personnel should be examined. There should be greater effort to interest workers in going to and remaining in rural areas, and methods of providing special training for workers in rural areas who may need to perform a variety of functions should be explored.

In congested and deteriorated urban areas.—Community planning for children in crowded urban areas needs to be further developed with broad citizen participation and consideration of the possibilities of neighborhood projects and coordinated neighborhood services. A careful review of present experience and the proportion of children and youth being served is greatly needed.

In areas affected by defense mobilization.—In critical defense areas, local authorities will find it necessary to expand and strengthen their services for children and youth to safeguard their health and welfare. The Federal Government should assist States and communities in planning and providing for the services that will be needed.

In areas vulnerable to attack.—Special planning is needed for the protection and care of children during the emergency period following an enemy attack and during the post-disaster period when States and communities will be responsible for helping families to meet the social problems resulting from the attack. Federal assistance has

been authorized for the temporary relief or aid of civilians injured or in want as the result of an attack. Consideration should also be given to provision for aiding States and communities in furnishing the longer-term services and support for children that may overload their present resources.

To offset the effect on children of general discussion of the possibility of atomic attack, ways should be found by which children can be prepared to meet disasters without developing acute anxieties.

FOR CHILDREN AND FAMILIES UNDER SPECIAL HANDICAPS OR TENSIONS

Families of servicemen.—If a fairly high level of mobilization for the Armed Forces is to be maintained, a program somewhat similar to the emergency maternity and infant care program for wives and infants of enlisted men, carried on by the Children's Bureau during World War II, will be needed. The statement of principles to be considered in proposals for such a program, which was developed by the Bureau in consultation with medical, hospital, and other groups, affords a basis for legislation in conformity with the lessons learned from World War II experience and developments since that time.

Families in which mothers are employed.—Planning for services for children of employed mothers should build on experience during and since World War II and develop a broader range of services than has hitherto been available. In recognition of the contributions mothers make in the home and their responsibilities for children, organized recruitment of mothers by industry should be deferred until full use has been made of all other sources of labor supply. However, the right of mothers to make their own decisions as to employment should be respected and community measures should be developed through the schools and community welfare and health agencies to provide suitable care for their children. Because of the impact of defense production on the employment of mothers, Federal aid for planning and providing day care services for their children is needed not only in areas where the defense program has greatly increased the population but also in other areas where substantial numbers of mothers are employed.

Low-income families.—The needs of children in low-income families and the possible effects of low income on personality development in children should be kept constantly in mind in the development of economic and social policies.

Broken homes.—There is need for expanding the social services of public and voluntary welfare agencies for children living in broken

homes and for relating the services more closely to those of other agencies, such as the courts that deal with nonsupport, separation, divorce, and guardianship.

Children in migrant families.—Federal agencies in cooperation with State and other agencies should take concerted action to develop effective services for the children of agricultural migrants, who are among the neediest groups in the population.

Handicapped children.—Particular attention should be given to meeting the social and emotional as well as the physical needs of handicapped children. Institutional care and community services for retarded children should receive special consideration.

Emotionally disturbed children.—Every effort should be directed toward developing more nearly adequate community services for emotionally disturbed children through the cooperation of health, child guidance, educational, and social agencies. There is need for more emphasis on providing treatment in psychiatric clinics for children, and more effective methods of selecting children who need intensive treatment, and on developing adequate resources for nonresidential treatment. Increased resources for training all personnel who deal with disturbed children are essential.

Youthful drug addicts.—The apparent increase in the number of young persons addicted to the use of narcotics calls for a comprehensive program of tight control of supplies, apprehension of traffickers, treatment and rehabilitation services to meet the medical, social, and psychological needs of young addicts, and community education.

The Gist of Things To Be Done

The realization of our goals for children requires a clear recognition of the importance of doing everything possible, primarily through the family, the school, the church, and other agencies of the community, to assure their happiness and a good start on life's journey. Children are always an emergency, and meeting their needs cannot be postponed because of the necessity for mobilizing for defense. We should be able, within the coming decade, to bring maternal and infant mortality down sharply, especially among those groups and in those areas where the rates are still very high. We should be able to develop the resources, the organization, and the trained personnel necessary to provide avenues for the application of scientific knowledge to the rearing of children in every community in the land. We should be able to expand greatly research in those aspects of child life and development concerning which additional knowledge is urgently needed. Above all, we need to recognize that the basic ingredients of the growth

of healthy personality are the faith, hope, and love of those responsible for the child's nurture within and outside the home, and their regard for each child's innate dignity and worth.

Bureau of Federal Credit Unions

Federal Credit Unions in the National Emergency

THE IMPACT of emergency measures adopted by the Federal Government during the fiscal year 1951 was not fully reflected in the operations of Federal credit unions as of June 30.

Regulation W governing consumer credit, which was reimposed by the Federal Reserve Board as of September 18, 1950, and made more stringent on October 16, affected the volume of new loans granted. Since outstanding loans were at an all-time high on the effective date of the new regulation, however, and since new Federal credit unions were established each month thereafter, the amount of outstanding loans was 20.6 percent higher on June 30, 1951, than at the end of the preceding fiscal year—\$278.4 million as compared with \$230.8 million.

The relative decline in the amount of loans granted by Federal credit unions between September 18, 1950, and June 30, 1951, was less than during the corresponding period in 1940-41, following the first Regulation W in September 1940. Federal credit union officials generally have not adopted loan policies more restrictive than Regulation W, as they did in 1940. Moreover, these organizations are now growing more rapidly in membership and are better known among their potential members than they were 10 years ago.

The field staff of the Bureau of Federal Credit Unions checked for compliance with Regulation W during regular examinations. Violations, if any, were reported to the Federal Reserve bank or branch having jurisdiction. This activity increased somewhat the workload of examiners and regional office personnel. Federal credit unions' compliance with the spirit and letter of Regulation W has been excellent.

As increasing numbers of men and women entered military service during the year, officials of Federal credit unions again became conscious of the Soldiers' and Sailors' Civil Relief Act of 1948, which limits interest rates and collection procedures on loans outstanding to persons in the service. Because of the favorable experience during World War II, few of the credit unions deemed it necessary to restrict unduly their loans to members of military age. Credit union leaders urged helpful, constructive loan policies. In the aggregate, the act had a negligible influence on the volume of loans granted.

Since more than 83 percent of all Federal credit unions serve employee groups, the mobilization of industry in the defense effort can greatly influence their organization, operation, and survival. As the manufacture of military equipment and supplies displaces civilian production, some companies go out of business, new plants are established, and some factories become larger; all these changes result in a migration of workers. During the year, the charters of nine Federal credit unions were canceled when liquidation caused by the closing of plants was completed. In the same period, however, more than 60 charters were granted to employee groups in industries engaged to some degree in defense production. Membership and savings increased substantially in Federal credit unions of the occupational type. In general, the defense production effort to date has not disrupted the operation of Federal credit unions as it did in 1942. The transition is being made more gradually, and civilian production has been maintained at a higher level than was possible during World War II.

In a speech to the Nation on September 9, 1950, the day after he signed the Defense Production Act of 1950, President Truman urged everyone to increase his savings out of current earnings as one means of combating inflation. Encouraging the development of habits of thrift is one of the primary purposes of Federal credit unions. Several Federal credit union leaders spoke of the President's speech as a challenge, and many credit unions increased their efforts to promote thrift. Because of their convenience, their practice of accepting savings even in very small amounts, and their self-help motivation, Federal credit unions are in a unique position to supplement effectively the other thrift agencies. They are making a contribution by encouraging people who would not otherwise do so to save.

At the end of the year, there were 5,219 Federal credit unions in operation, 4,352 among employee groups, 750 among members of churches, lodges, labor unions, farm organizations, and cooperatives, and 117 in rural and urban residential groups. They had 2.3 million members, average savings of \$175 per member, and total assets of \$442.3 million, of which \$278.4 million was outstanding in loans to members. During the year, the number of operating units increased 444 or 9.3 percent; membership increased 308,000 or 15.4 percent; average savings per member increased from \$166 to \$175; and the amount outstanding in loans increased \$47.6 million or 20.6 percent. The persons eligible to join these Federal credit unions increased from 4.9 million to 5.8 million during the year. The first Federal credit unions in Puerto Rico were organized in October 1950 and six were in operation there at the end of the fiscal year. Federal credit unions were also operating in Alaska, Hawaii, the Canal Zone, and the District of Columbia, as well as in every State.

Program Operations

Under the Federal Credit Union Act the Bureau is responsible for chartering, examining, and supervising Federal credit unions. On June 30, 1951, the Bureau had a staff of 153, of whom 132 were in the field service and 21 in Washington. Though the field staff is larger by 30 than it was a year earlier, it still cannot examine all Federal credit unions annually and perform essential supervisory functions. Through continuing efforts in management improvement projects, productivity of personnel is greater than ever before. Operating procedures are being streamlined without sacrificing essential quality of performance. Ideas and suggestions for management improvement are coming from employees throughout the organization. By the end of the year, however, it appeared that future efforts to simplify procedures cannot be expected to be as effective, and it will be necessary to enlarge the staff gradually to meet the expanding workload.

During the year, 551 charters were granted to groups that requested them and were found to be eligible under the terms of the Federal Credit Union Act. In 443 of these cases the initial contacts were made and assistance in preparing the charter applications was given by volunteers and by employees of State Leagues and the Credit Union National Association; employees of the Bureau carried the work in the other 108 cases. The Bureau encourages and trains volunteers to perform this organization work as a means of saving staff time. In some localities, volunteers and State League employees also have been trained to conduct organization meetings and to give initial instructions to the newly elected Federal credit union officials.

In the fiscal year, 4,101 Federal credit unions were examined. This number represented 82.3 percent of those in operation at the end of the preceding calendar year, the highest percentage attained in any year since 1947 and the largest number since the Federal Credit Union Act became law in 1934. The credit unions examined had average assets of \$76,570 as compared with \$47,989 in the fiscal year 1948, which ended just before the Bureau was established in the Federal Security Agency. Although Federal credit unions are larger and are more active, the average time for making an examination increased only from 3.0 to 3.026 days during this period.

During the year, 69 shortage examinations were made of Federal credit unions. This number was only 1.7 percent of all examinations made, but it required 7.9 percent of the total time devoted to examination work. Shortage examinations and the follow-up supervisory work on such cases constitute a substantial workload factor for the Bureau. Since members' savings in these federally chartered institu-

tions are not insured, annual examinations are important. Defalcations are known to have grown out of confusion in the records. This threat can be reduced by frequent and thorough examinations. In the fiscal year 1950, the 72 shortage examinations made represented 2.5 percent of the total number of examinations and required 9.1 percent of total time devoted to examination work by field examiners.

In the 1951 fiscal year, 70 final examinations were made at the completion of liquidation, two more than in the preceding year. Between the commencement and completion of a Federal credit union liquidation, field examiners may have to spend a considerable amount of time to determine that the interests of the members are protected. This work is a part of supervision.

The operations of the Bureau are financed in part by fees paid by Federal credit unions and in part by appropriation. In keeping with the objective of Congress, an increasing share of the cost of Bureau operations came from the credit unions in examination fees. During the fiscal year 1951, a total of \$470,725 in fees was collected—\$13,800 for chartering, \$46,270 for supervision, and \$410,655 for examination. The comparable figures for total fees were \$187,175 for the fiscal year 1949 and \$288,530 for the fiscal year 1950. The amounts collected in examination fees for these 2 years were \$137,374 and \$232,336, respectively.

These increases in fees are substantial. Expressed as a percentage of gross earnings of Federal credit unions, however, examination and supervision fees were less in the fiscal year 1951 (1.8 percent) than they were in 1947 (3.1 percent).

In the fiscal year 1949, \$4 of each \$12 of the Bureau's operating expenses came from fees paid by Federal credit unions; in the fiscal year 1951 these fees amounted to \$8 of each \$12 expended to maintain the Bureau.

In budget hearings for the fiscal year 1952 the Bureau was again urged by committees of both Houses of Congress to continue its efforts to become more nearly self-supporting. To achieve this aim without impairing essential services to Federal credit unions requires an increase in fees. This additional revenue might be obtained by increasing the examination fees substantially above the level in effect at the end of the 1951 fiscal year. Another possible method would be to increase the supervision fee, which is now \$10 per year per Federal credit union, and to increase the per diem examination fee by a lesser amount. The Social Security Administration prefers the second method because it will result in a schedule of examination and supervision fees more closely related to ability to pay and will not injure any Federal credit union, large or small.

The Federal Security Agency has recommended to Congress that the Federal Credit Union Act be amended to provide for a supervision fee of \$10 per year for each \$40,000 of assets or fraction thereof, in place of the maximum per annum fee of \$10 fixed by the present law regardless of size of assets. If the assets continue to increase as they have for the past 3 years, supervision fees at the proposed rate will bring in enough revenue within 6 or 7 years to cover the cost of administration and supervision. At that time it is expected that the Bureau will be on a self-sustaining basis, or nearly so.

The present law requires examination fees to be fixed by a scale established by the Director of the Bureau of Federal Credit Unions, "giving due consideration to the time and expense incident to such examinations and to the ability of Federal credit unions to pay such fees * * *." The schedule so established is composed of a per diem rate and an asset rate. At the conclusion of each examination the examiner computes the fee at the asset rate and at the day rate, and the lower of the two is the fee assessed. The day rate was increased from \$47.20 to \$56, effective July 2, 1951. The asset rate was retained at 50 cents per \$100.

Employees and treasurers of Federal credit unions who earn \$50 or more per quarter were covered by old-age and survivors insurance as of January 1, 1951. Federal credit unions welcomed this extension of the social security program.

On June 30, 1951, more than 23,000 employees of the Federal Security Agency were eligible for membership in 26 credit unions, 22 of which operate under Federal charters. The other four operate under State credit union laws in Alabama, Massachusetts, Missouri, and Washington. As of December 31, 1950, the latest date for which financial data are available, these credit unions had total assets of \$1.9 million; average savings per member were \$140; outstanding loans totaled \$1.4 million; and membership was 12,271. During the calendar year 1950, membership increased 2,200 and assets increased \$700,000. Through participation in credit unions, employees of the Federal Security Agency are providing worth-while savings and small-loan services for themselves.

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1951 and 1950[In thousands; data as of June 30, 1951]¹

Item	Funds available ²		Obligations incurred	
	1951	1950	1951	1950
Total	\$1,371,641	\$1,166,695	\$1,293,618	\$1,160,345
Grants to States	1,310,250	1,120,000	1,234,886	1,113,912
Public assistance	1,280,000	1,098,000	1,205,000	1,091,932
Old-age assistance			838,627	820,275
Aid to the blind			26,858	23,449
Aid to dependent children	1,280,000	1,098,000	319,205	248,208
Aid to the permanently and totally disabled			20,310	0
Maternal and child health and welfare services	30,250	22,000	29,886	21,980
Maternal and child health services	13,200	11,000	12,881	10,986
Services for crippled children	9,975	7,500	9,930	7,494
Child welfare services	7,075	3,000	7,075	3,500
Administrative expenses ³	61,391	46,695	58,732	46,433
Office of the Commissioner ⁴	337	329	335	328
Bureau of Old-Age and Survivors Insurance ⁵	57,315	42,864	54,724	42,650
Bureau of Federal Credit Unions ⁶	776	651	761	619
Children's Bureau ⁷	1,500	1,482	1,480	1,473
Bureau of Public Assistance	1,463	1,369	1,432	1,363

¹ Funds available and obligations as reported by administrative agencies.² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, and recoveries.³ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and reimbursement items for services rendered to other Government agencies.⁴ Approximately 70 percent of the administrative expenses of the Office of the Commissioner were appropriated by Congress from general revenues; balance from old-age and survivors insurance trust fund.⁵ For administration of the old-age and survivors insurance program, which involved benefit payments of \$727,266,000 in 1950 and \$1,498,088,000 in 1951.⁶ Fee collections for services rendered to member credit unions represent approximately 47 percent of obligations incurred in 1950 and 69 percent in 1951.⁷ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—*Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1949–51*

[In millions]

Item	1951	1950	1949
Contributions collected under:			
Federal Insurance Contributions Act ¹	\$3, 120	\$2, 106	\$1, 690
Federal Unemployment Tax Act ²	234	226	223
State unemployment insurance laws ³ ⁴	1, 365	1, 094	989
Old-age and survivors insurance trust fund:			
Receipts, total.....	3, 411	2, 367	1, 924
Transfers and appropriations ⁵	3, 124	2, 110	1, 694
Interest and profits on investments.....	287	257	230
Expenditures, total.....	1, 569	784	661
Monthly benefits and lump-sum payments ⁶	1, 498	727	607
Administration ⁷	70	57	53
Assets, end of year.....	14, 736	12, 893	11, 310
State accounts in the unemployment trust fund:			
Receipts, total.....	1, 510	1, 248	1, 144
Deposits ⁴	1, 363	1, 099	984
Interest.....	148	149	160
Withdrawals for benefit payments.....	848	1, 879	1, 227
Assets, end of year.....	7, 314	6, 652	7, 283

¹ Contribution paid by employers and employees on wages up to and including \$3,000 a year through Dec. 31, 1950, and up to and including \$3,600 a year beginning Jan. 1, 1951: 1 percent each through Dec. 31, 1949, and 1½ percent each beginning Jan. 1, 1950.

² Tax paid only by employers of eight or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first \$3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.

³ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies; corrected to August 1951.

⁴ Contributions and deposits by States usually differ slightly, primarily because of time lag in making deposits.

⁵ Includes amounts collected under the Federal Insurance Contributions Act and transfers from the general fund of \$3,279,400 for fiscal year 1949, \$3,604,000 for fiscal year 1950, and \$3,694,000 for fiscal year 1951, to meet administrative and other cost of benefits payable to survivors of certain World War II veterans as defined in title II of the Social Security Act amendments of 1946; beginning May 1951, includes deposits by States under voluntary agreements for coverage of State and local employees.

⁶ Represents checks issued; before July 1, 1948, represents checks cashed and returned to the Treasury.

⁷ Data do not reflect actual expenses in the respective years because of bookkeeping adjustments.

Source: Compiled from *Daily Statement of the U. S. Treasury* and State agency reports.

Table 3.—Old-age and survivors insurance: Estimated number of families and beneficiaries in receipt of benefits and average monthly benefit in current-payment status, by family group, end of June 1951 and 1950

[In thousands, except for average benefit; data corrected to Oct. 31, 1951]

Family classification of beneficiaries in current-payment status	June 30, 1951			June 30, 1950		
	Number of families	Number of beneficiaries	Average monthly amount per family	Number of families	Number of beneficiaries	Average monthly amount per family
Total.....	2, 866. 5	4, 033. 6	-----	2, 051. 7	2, 930. 4	-----
Retired worker families.....	2, 090. 7	2, 748. 2	-----	1, 384. 8	1, 839. 2	-----
Worker only.....	1, 478. 8	1, 478. 8	\$40. 90	940. 0	940. 0	\$25. 50
Male.....	1, 091. 1	1, 091. 1	43. 50	739. 7	739. 7	26. 80
Female.....	387. 7	387. 7	33. 60	200. 3	200. 3	20. 80
Worker and wife aged 65 or over.....	568. 5	1, 137. 0	70. 40	418. 8	837. 6	41. 90
Worker and wife under age 65 ^{1 2} 8	1. 6	63. 20	-----	-----	-----
Worker and aged dependent husband ¹	2. 4	4. 8	59. 50	-----	-----	-----
Worker and 1 child.....	10. 2	20. 4	65. 80	17. 0	34. 0	41. 40
Worker and 2 or more children.....	5. 6	17. 8	74. 80	8. 7	26. 7	51. 40
Worker, wife aged 65 or over, and 1 or more children.....	. 4	1. 3	93. 40	. 3	. 9	57. 30
Worker, wife under age 65, and 1 or more children ¹	24. 0	86. 5	73. 10	-----	-----	-----
Survivor families.....	775. 8	1, 285. 4	-----	666. 9	1, 091. 2	-----
Aged widow.....	350. 1	350. 1	36. 20	290. 2	290. 2	20. 90
Aged dependent widower ¹ 2	. 2	30. 60	-----	-----	-----
Widowed mother only ²	2. 0	2. 0	36. 10	3. 3	3. 3	21. 40
Widowed mother and 1 child.....	88. 0	176. 0	75. 00	81. 0	162. 0	36. 70
Widowed mother and 2 children.....	61. 4	184. 2	91. 50	45. 4	136. 2	50. 70
Widowed mother and 3 or more children.....	41. 0	171. 0	90. 00	27. 1	110. 6	54. 50
Divorced wife and 1 or more children ¹ 1	. 2	84. 40	-----	-----	-----
1 child only.....	122. 3	122. 3	35. 10	110. 8	110. 8	13. 50
2 children.....	49. 9	99. 8	59. 80	51. 2	102. 4	26. 80
3 children.....	19. 5	58. 5	75. 60	19. 5	58. 6	37. 70
4 or more children.....	25. 5	104. 4	83. 60	25. 3	103. 0	50. 10
1 aged dependent parent.....	14. 7	14. 7	36. 70	12. 0	12. 0	13. 80
2 aged dependent parents.....	1. 1	2. 1	72. 30	1. 1	2. 1	26. 70

¹ Effective September 1950, under the Social Security Act Amendments of 1950, benefits became payable to wives under age 65 with entitled children in their care, aged dependent husbands or widowers, and former wives divorced.

² Benefits of child or children were being withheld.

Table 4.—Old-age and survivors insurance: Selected data on benefits and taxable wages, by State, for specified period, 1948–51

In thousands, except for average taxable wages; data corrected to Sept. 28, 1951]

State ¹	Monthly benefits in current-payment status, end of fiscal year		Payments certified, fiscal year			Workers with taxable wages, calendar year ³	Amount of taxable wages, calendar year ⁴		Employers reporting taxable wages, July–September ⁵
	Number	Amount	Total	Monthly benefits	Lump-sum payments ²		Total	Average per worker	
1948–49 ⁶	2,554.2	\$51,520	\$626,993	\$594,744	\$32,249	49,018	\$84,122,000	\$1,716	2,699
1949–50 ⁶	2,930.4	60,682	748,937	714,939	33,998	47,200	81,808,000	1,733	2,697
1950–51 ⁶	4,033.6	143,709	1,610,032	1,565,772	44,259	49,200	87,600,000	1,780	2,680
Alabama.....	58.6	1,674	18,826	18,299	527	720	917,000	1,274	32
Alaska.....	1.9	67	734	715	19	60	82,000	1,367	2
Arizona.....	15.8	536	5,904	5,777	127	210	265,000	1,262	13
Arkansas.....	30.8	845	9,314	9,073	241	340	380,000	1,118	23
California.....	320.0	11,961	133,934	130,745	3,189	3,760	6,290,000	1,673	228
Colorado.....	31.6	1,082	11,983	11,719	264	410	554,000	1,351	28
Connecticut.....	76.3	3,082	34,946	33,980	966	820	1,534,000	1,871	41
Delaware.....	9.4	350	3,935	3,835	100	160	246,000	1,538	7
District of Columbia.....	15.2	537	6,080	5,857	223	330	539,000	1,633	16
Florida.....	85.9	3,000	32,472	31,763	709	850	987,000	1,161	56
Georgia.....	57.1	1,615	18,141	17,542	599	950	1,145,000	1,205	42
Hawaii.....	9.6	306	3,462	3,392	70	130	199,000	1,531	7
Idaho.....	12.0	376	4,112	4,016	96	180	212,000	1,178	11
Illinois.....	255.0	9,598	107,939	104,621	3,318	3,470	6,331,000	1,824	180
Indiana.....	116.8	4,072	45,545	44,337	1,208	1,410	2,405,000	1,706	69
Iowa.....	53.3	1,719	19,035	18,565	470	670	961,000	1,434	52
Kansas.....	39.6	1,251	13,872	13,511	361	510	709,000	1,390	38
Kentucky.....	62.2	1,882	21,057	20,534	523	680	871,000	1,281	35
Louisiana.....	45.8	1,383	15,517	15,051	466	750	1,044,000	1,392	36
Maine.....	36.2	1,244	13,890	13,549	341	310	410,000	1,323	19
Maryland.....	56.5	2,011	22,607	21,852	755	770	1,171,000	1,521	35
Massachusetts.....	193.1	7,417	83,215	81,039	2,176	1,820	3,197,000	1,757	94
Michigan.....	177.2	6,643	74,552	72,382	2,170	2,370	4,551,000	1,920	109
Minnesota.....	64.5	2,259	25,021	24,380	641	850	1,355,000	1,594	58
Mississippi.....	24.5	642	7,087	6,895	192	380	376,000	989	21
Missouri.....	99.0	3,416	38,103	37,011	1,092	1,380	2,041,000	1,479	74
Montana.....	12.9	440	4,868	4,731	137	180	255,000	1,417	13
Nebraska.....	22.2	708	7,868	7,682	186	350	460,000	1,314	26
Nevada.....	3.9	142	1,591	1,540	51	70	89,000	1,271	4
New Hampshire.....	22.2	785	8,854	8,677	177	220	288,000	1,309	12
New Jersey.....	164.2	6,429	72,681	70,494	2,187	1,870	3,343,000	1,788	102
New Mexico.....	8.5	247	2,718	2,647	71	180	182,000	1,011	11
New York.....	474.3	17,944	202,152	195,980	6,172	6,370	11,291,000	1,773	367
North Carolina.....	66.1	1,871	21,036	20,384	652	1,120	1,313,000	1,172	44
North Dakota.....	5.8	173	1,905	1,852	53	120	147,000	1,225	10
Ohio.....	256.2	9,538	106,854	104,022	2,832	3,010	5,492,000	1,825	142
Oklahoma.....	39.5	1,215	13,374	13,047	327	560	779,000	1,391	36
Oregon.....	51.2	1,840	20,468	20,010	458	500	804,000	1,608	37
Pennsylvania.....	364.0	13,714	154,883	150,500	4,383	3,950	6,950,000	1,759	176
Puerto Rico.....	.3	9	92	88	4	(⁷)	(⁷)	(⁷)	(⁷)
Rhode Island.....	33.3	1,264	14,303	13,932	371	320	524,000	1,638	15
South Carolina.....	33.6	909	10,223	9,859	364	530	666,000	1,257	24
South Dakota.....	7.8	241	2,658	2,584	74	130	171,000	1,315	12
Tennessee.....	57.4	1,669	18,580	18,056	524	850	1,125,000	1,324	40
Texas.....	120.3	3,691	41,111	39,824	1,287	2,350	3,202,000	1,363	139
Utah.....	14.3	477	5,286	5,159	127	210	290,000	1,381	11
Vermont.....	12.2	413	4,628	4,540	88	110	145,000	1,318	7
Virginia.....	63.4	1,987	22,380	21,718	662	790	1,189,000	1,505	48
Virgin Islands.....	(⁹)	1	9	9	(⁹)	(⁷)	(⁷)	(⁷)	(⁷)
Washington.....	77.4	2,895	32,126	31,466	660	750	1,279,000	1,705	47
West Virginia.....	60.4	2,001	22,544	22,064	480	620	1,016,000	1,639	27
Wisconsin.....	93.4	3,338	37,317	36,377	940	1,120	1,912,000	1,707	68
Wyoming.....	5.0	172	1,930	1,885	45	90	124,000	1,378	6
Foreign.....	15.9	628	6,309	6,205	104	(⁷)	(⁷)	(⁷)	(⁷)

¹ State distribution estimated.² Excludes payments under the original 1935 act.³ Preliminary estimate. Totals represent number of different workers employed in covered industries at some time during 1948, 1949, and 1950, respectively. State data represent workers employed in the State at some time during 1949, workers employed in more than 1 State counted once in each of the States in which employed.⁴ Preliminary estimate. Totals are for 1948, 1949, and 1950, respectively. State data represent 1949 taxable wages distributed according to the State where wages were paid.

Continued on next page.

Table 5.—Old-age and survivors insurance: Benefits ¹ in current-payment status, payments certified, and workers with wage credits, fiscal years 1949–51

[Corrected to Sept. 26, 1951]

Item	Fiscal year		
	1951	1950	1949
Benefits ¹ in current-payment status (end of period):			
Number.....	4,033,583	2,930,357	2,554,248
Old-age.....	2,090,668	1,384,823	1,180,909
Wife's or husband's.....	596,098	419,123	359,840
Child's.....	787,311	665,351	614,714
Widow's or widower's.....	350,343	290,307	236,394
Mother's.....	192,357	156,664	149,724
Parent's.....	16,806	14,089	12,667
Total monthly amount.....	\$143,708,778	\$60,681,500	\$51,520,000
Old-age.....	\$89,000,025	\$36,415,828	\$30,369,096
Wife's or husband's.....	\$13,674,014	\$5,840,022	\$4,898,101
Child's.....	\$21,282,368	\$8,828,736	\$8,043,794
Widow's or widower's.....	\$12,683,323	\$6,079,758	\$4,897,656
Mother's.....	\$6,452,784	\$3,322,210	\$3,137,870
Parent's.....	\$616,264	\$194,946	\$173,483
Average monthly amount:			
Old-age.....	\$42.57	\$26.30	\$25.72
Wife's or husband's.....	\$22.94	\$13.93	\$13.61
Child's.....	\$27.03	\$13.27	\$13.09
Widow's or widower's.....	\$36.20	\$20.94	\$20.72
Mother's.....	\$33.55	\$21.21	\$20.96
Parent's.....	\$36.67	\$13.84	\$13.70
Payments certified during period:			
Monthly benefits.....	\$1,565,772,281	\$714,939,181	\$594,744,288
Old-age.....	\$962,314,392	\$427,112,452	\$346,376,498
Supplementary.....	\$159,807,324	\$73,746,725	\$60,024,714
Survivor.....	\$443,650,565	\$214,080,004	\$188,343,076
Lump-sum payments ¹	\$44,259,275	\$33,997,625	\$32,248,926
Estimated number of living workers with wage credits (midpoint of period—Jan. 1): ²			
Total.....	82,600,000	80,600,000	79,200,000
Fully insured.....	59,600,000	40,100,000	38,900,000
Currently but not fully insured.....	(³)	5,600,000	5,900,000
Uninsured.....	23,000,000	34,900,000	34,400,000

¹ Effective Sept. 1, 1950, under the Social Security Act Amendments of 1950: (1) husband's and widower's insurance benefits became payable; (2) the terms "primary insurance benefit" and "widow's current insurance benefit" were changed to "old-age insurance benefit" and "mother's insurance benefit," respectively.

² Excludes payments under the original 1935 Act.

³ Not adjusted to reflect changes in insured status arising from (1) combined earnings under coordinated survivor provisions of the old-age and survivors insurance and railroad retirement programs, and (2) persons with military service in World War II.

⁴ Not possible under the 1950 amendments until July 1, 1954.

Footnotes to Table 4—Continued

⁵ Employer returns for July-September 1948, 1949, and 1950, respectively. State data represent number of employers reporting taxable wages for July-September 1950 by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership, for which a single tax return is filed.

⁶ See column heads for period to which data relate.

⁷ Employment not covered prior to 1951.

⁸ Less than 50.

⁹ Less than \$500.

Table 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1951, and total payments to recipients, by program and State, fiscal year 1951

[Corrected to Sept. 15, 1951]

State	Old-age assistance			Aid to dependent children						Aid to the blind			Aid to the permanently and totally disabled 1		
	Number of recipients, June	Payments to recipients		Number of recipients, June			Payments to recipients			Number of recipients, June	Payments to recipients		Number of recipients, June	Payments to recipients	
		Average payment, June	Total, 2 fiscal year (in thousands)	Families	Total 3	Children	Average payment per family, June	Average payment per recipient, June	Total, 2 fiscal year (in thousands)		Average payment, June	Total, 2 fiscal year (in thousands)			
Fiscal year:															
1949.....	2,625,594	\$43.59	\$1,259,381	536,714	-----	1,365,715	\$72.71	-----	\$414,138	71,196	\$46.50	\$36,451	-----	-----	-----
1950.....	2,790,068	43.85	1,437,982	654,180	-----	1,659,645	70.37	-----	520,312	77,171	47.52	42,240	-----	-----	-----
1951.....	2,745,285	43.23	1,472,617	632,622	2,171,332	1,617,826	73.32	\$21.36	567,602	94,220	46.96	52,956	104,198	\$44.87	\$32,504
Alabama.....	80,723	21.21	19,894	18,659	64,565	51,594	35.24	10.19	7,156	1,563	22.67	409	8,488	21.71	1,548
Alaska.....	1,601	57.16	1,100	654	2,172	1,573	74.51	22.43	510	(4)	(4)	(4)	-----	-----	-----
Arizona.....	14,126	50.54	8,759	4,055	15,258	11,417	75.75	20.13	4,238	833	56.69	616	-----	-----	-----
Arkansas.....	63,326	20.90	20,053	15,517	54,684	41,719	35.29	10.01	8,392	1,949	25.85	712	-----	-----	-----
California.....	274,490	67.02	222,470	57,219	175,971	131,349	111.01	36.10	72,022	11,201	81.82	10,694	-----	-----	-----
Colorado.....	52,099	76.41	45,256	5,450	19,997	15,048	91.23	24.87	5,777	355	59.18	257	2,153	46.89	227
Connecticut.....	19,875	60.58	16,611	5,535	18,059	13,000	107.59	32.98	8,031	302	65.78	255	-----	-----	-----
Delaware.....	1,582	28.85	563	711	2,728	2,082	71.50	18.64	604	202	44.56	105	100	39.04	21
District of Columbia.....	2,840	47.59	1,454	2,118	8,484	6,518	96.75	24.15	2,158	261	51.94	143	890	53.94	276
Florida.....	69,323	38.78	31,547	28,876	94,686	70,958	50.06	15.27	16,604	3,322	42.63	1,656	-----	-----	-----
Georgia.....	101,684	24.17	29,150	19,373	63,580	49,113	46.24	14.09	9,755	2,868	28.99	959	-----	-----	-----
Hawaii.....	2,316	33.73	942	3,370	12,654	9,797	88.99	23.70	3,904	115	33.27	50	785	45.61	155
Idaho.....	11,025	46.38	6,162	2,371	8,102	5,931	103.55	30.33	2,961	207	53.36	129	627	48.46	149
Illinois.....	115,701	44.42	66,743	23,107	81,294	60,089	98.40	27.97	27,213	4,168	48.38	2,520	1,348	42.94	231
Indiana.....	48,727	35.37	25,211	10,067	33,162	24,448	65.64	19.93	9,407	1,812	38.67	975	-----	-----	-----
Iowa.....	48,862	49.86	29,023	5,242	18,289	13,587	97.31	27.89	5,418	1,263	58.10	893	-----	-----	-----
Kansas.....	38,405	49.13	23,111	4,797	16,834	12,653	81.61	23.26	4,757	646	50.43	408	2,552	47.15	1,016
Kentucky.....	67,018	20.67	16,625	23,228	81,680	59,920	42.14	11.98	10,723	2,476	31.80	692	-----	-----	-----
Louisiana.....	118,713	46.61	66,878	23,904	85,763	63,378	49.60	13.82	16,196	1,882	44.21	979	14,884	31.26	4,435
Maine.....	15,054	42.75	7,881	4,554	15,897	11,576	73.77	21.13	3,684	646	45.62	359	-----	-----	-----

Maryland	11,488	38.39	5,305	6,028	23,090	17,526	81.22	21.20	5,930	487	43.26	240	2,150	43.96	295
Massachusetts	101,572	61.78	78,047	13,275	43,749	32,064	109.26	33.15	18,029	1,571	69.38	1,229			
Michigan	95,722	47.04	54,063	25,168	81,107	57,636	92.13	28.59	27,577	1,853	52.22	1,134	712	57.55	107
Minnesota	55,016	42.55	34,480	7,880	26,610	20,151	90.52	26.81	8,820	1,148	57.25	774			
Mississippi	59,098	18.41	13,979	10,593	39,447	30,520	18.93	5.08	2,868	2,769	23.40	826	454	16.72	32
Missouri	131,748	43.25	68,927	23,833	80,705	59,196	52.05	15.37	15,652	(⁵)	(⁵)	(⁵)	8,016	46.53	2,379
Montana	11,713	53.61	7,470	2,444	8,473	6,228	86.22	24.87	2,373	546	58.99	372	897	58.51	299
Nebraska	22,696	46.17	13,731	3,358	10,823	8,055	86.88	26.96	3,599	736	63.07	517			
Nevada	2,769	55.04	1,738	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)			
New Hampshire	7,194	44.32	4,584	1,606	5,425	3,945	102.06	30.21	2,212	312	49.53	215			
New Jersey	23,227	49.14	13,549	5,224	17,482	13,248	93.97	28.08	6,039	781	55.50	502			
New Mexico	10,676	38.31	4,562	5,587	19,374	14,694	59.80	17.25	3,616	523	37.17	218	1,364	41.73	248
New York	115,219	54.20	84,813	54,289	181,092	128,952	107.81	32.32	74,955	4,029	62.97	3,212	24,682	58.99	13,267
North Carolina	61,447	22.47	16,500	16,449	59,959	45,978	45.85	12.58	8,465	4,454	34.45	1,753	2,226	26.84	165
North Dakota	9,022	50.45	5,551	1,792	6,576	4,968	109.81	29.92	2,278	110	53.50	72	399	52.73	94
Ohio	119,910	44.60	68,082	14,666	53,716	40,278	76.38	20.86	12,925	3,834	45.56	2,133	2,628	42.75	491
Oklahoma	98,128	48.64	54,637	21,873	72,949	55,321	72.57	21.76	15,573	2,619	51.66	1,557			
Oregon	23,180	54.20	15,014	4,079	13,471	10,088	105.10	31.82	4,913	396	65.92	302	1,419	64.89	636
Pennsylvania	79,740	38.54	41,146	39,302	140,007	103,582	86.07	24.16	49,262	⁶ 15,311	⁶ 39.71	⁶ 7,565	14,994	42.42	2,017
Puerto Rico ¹	17,677	7.66	1,166	11,519	36,486	27,063	8.97	2.83	834	467	7.51	34			
Rhode Island	9,738	45.37	5,509	3,316	11,109	7,982	87.29	26.06	3,750	177	54.67	119			
South Carolina	42,870	25.10	11,892	6,700	24,950	19,254	38.62	10.37	2,707	1,606	27.46	497	2,319	32.15	519
South Dakota	12,069	40.69	5,808	2,597	8,470	6,301	69.68	21.37	1,993	220	38.05	98			
Tennessee	64,852	29.34	23,969	22,902	81,501	61,165	47.44	13.33	14,047	2,747	37.59	1,222			
Texas	221,814	32.78	88,552	19,015	73,070	54,329	45.84	11.95	10,046	6,093	37.03	2,704			
Utah	9,836	49.16	5,520	3,091	10,791	8,001	105.07	30.10	3,688	214	53.62	126	1,566	54.01	735
Vermont	6,891	36.59	2,979	1,042	3,618	2,811	53.62	15.44	671	179	40.45	87	175	19.47	16
Virgin Islands ¹	627	10.83	59	179	546	494	15.41	5.05	22	50	10.48	5	24	(⁷)	3
Virginia	19,575	22.09	5,148	8,372	31,030	23,470	50.89	13.73	4,923	1,519	30.25	549	1,751	32.87	478
Washington	70,004	62.13	54,604	10,890	35,895	25,879	98.91	30.01	15,837	846	76.10	757	4,905	64.62	1,858
West Virginia	25,886	26.29	8,510	17,351	64,016	49,315	57.75	15.65	12,480	1,079	31.14	398	462	32.47	38
Wisconsin	52,075	43.07	30,370	8,784	29,761	21,967	105.80	31.23	11,284	1,374	49.47	860	764	63.55	601
Wyoming	4,316	55.89	2,921	611	2,175	1,615	98.55	27.69	726	99	53.30	67	464	53.13	170

¹ Program initiated in October 1950 under Public Law 734.² For fiscal year 1951, expenditures include vendor payments for medical care.³ Beginning October 1950, includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.⁴ Alaska does not administer aid to the blind.⁵ No approved plan in operation.⁶ Approved by the Social Security Administration to receive Federal participation beginning February 1951.⁷ Average payment not computed on base of less than 50 recipients.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants certified and total expenditures and percent from Federal funds, by program and State, fiscal year 1951¹

[Amounts in thousands; data corrected to Sept. 15, 1951]

State	Federal grants certified ²					Expenditures for assistance and administration							
						Old-age assistance		Aid to dependent children		Aid to the blind		Aid to the permanently and totally disabled ³	
	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Aid to the permanently and totally disabled ³	Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds	Amount	Percent from Federal funds
Fiscal year:													
1949.....	\$927, 897	\$718, 012	\$189, 415	\$20, 470	-----	\$1, 325, 920	54. 8	\$446, 248	43. 1	\$39, 507	51. 9	-----	-----
1950.....	1, 091, 931	820, 275	248, 208	23, 449	-----	1, 510, 933	54. 6	559, 905	44. 1	45, 551	51. 7	-----	-----
1951.....	1, 201, 657	836, 733	318, 179	26, 578	\$20, 167	1, 549, 485	53. 7	614, 218	50. 7	57, 044	46. 2	\$37, 323	46. 3
Alabama.....	23, 281	15, 608	5, 918	319	1, 436	21, 272	72. 8	7, 787	72. 4	451	70. 4	1, 722	71. 1
Alaska.....	895	570	325	(4)	-----	1, 160	48. 9	562	56. 4	(4)	(4)	-----	-----
Arizona.....	7, 980	5, 034	2, 619	327	-----	8, 985	54. 9	4, 412	57. 3	641	49. 7	-----	-----
Arkansas.....	23, 136	15, 302	7, 302	533	-----	20, 674	69. 5	8, 694	72. 1	740	66. 2	-----	-----
California.....	137, 123	100, 968	32, 142	4, 013	-----	232, 229	42. 9	79, 429	38. 1	11, 465	34. 9	-----	-----
Colorado.....	20, 574	17, 280	3, 001	136	157	46, 442	37. 2	6, 214	51. 3	282	47. 6	283	54. 1
Connecticut.....	10, 616	7, 397	3, 111	108	-----	17, 348	41. 8	8, 377	35. 9	265	40. 7	-----	-----
Delaware.....	936	424	413	75	24	643	65. 2	683	59. 9	125	56. 6	21	43. 0
District of Columbia.....	2, 526	924	1, 359	87	156	1, 618	57. 4	2, 348	55. 8	154	56. 0	296	52. 8
Florida.....	34, 302	21, 044	12, 166	1, 092	-----	32, 871	62. 6	17, 792	67. 6	1, 733	61. 5	-----	-----
Georgia.....	29, 515	21, 762	7, 082	671	-----	31, 126	69. 7	10, 324	69. 1	1, 025	66. 4	-----	-----
Hawaii.....	3, 048	659	2, 286	36	66	1, 047	61. 0	4, 263	50. 1	58	58. 0	172	43. 3
Idaho.....	5, 204	3, 636	1, 409	69	90	6, 472	55. 5	3, 092	43. 5	136	50. 4	176	53. 2
Illinois.....	51, 771	36, 845	13, 381	1, 427	118	71, 401	53. 0	29, 260	45. 8	2, 793	52. 4	275	50. 4
Indiana.....	21, 943	15, 107	6, 204	631	-----	26, 839	55. 9	10, 163	55. 8	1, 109	55. 0	-----	-----
Iowa.....	19, 394	16, 117	2, 835	441	-----	30, 743	53. 7	5, 803	48. 3	968	46. 5	-----	-----
Kansas.....	17, 243	13, 396	2, 813	229	805	24, 333	53. 9	5, 186	53. 1	441	52. 5	1, 224	32. 9
Kentucky.....	21, 630	12, 864	8, 260	506	-----	17, 416	73. 2	11, 260	72. 7	724	70. 2	-----	-----
Louisiana.....	56, 929	41, 303	11, 747	573	3, 306	68, 940	60. 0	17, 557	67. 4	1, 029	55. 8	5, 198	57. 5
Maine.....	7, 589	4, 990	2, 371	229	-----	8, 228	61. 0	3, 854	61. 2	376	60. 5	-----	-----

Maryland.....	7,564	3,422	3,703	155	284	5,720	60.3	6,365	56.7	256	59.5	391	56.1
Massachusetts.....	48,052	39,176	8,340	536	---	82,568	43.4	19,116	38.1	1,285	41.9	---	---
Michigan.....	45,715	31,407	13,453	632	223	56,560	55.8	29,039	46.1	1,181	53.7	118	48.3
Minnesota.....	22,281	17,492	4,399	391	---	36,045	50.1	9,708	45.4	865	47.4	---	---
Mississippi.....	14,327	11,157	2,512	614	44	15,167	73.0	3,323	71.6	873	69.4	60	63.3
Missouri.....	56,623	43,446	11,509	(5)	1,668	70,754	61.0	16,797	66.5	(5)	(5)	2,680	50.5
Montana.....	6,161	4,264	1,373	227	297	7,843	51.9	2,546	50.7	419	48.4	365	48.2
Nebraska.....	9,868	7,691	1,911	267	---	14,683	52.7	3,858	48.0	552	46.4	---	---
Nevada.....	1,037	1,037	(5)	(5)	---	1,918	54.4	(5)	(5)	(5)	(5)	---	---
New Hampshire.....	3,453	2,414	933	106	---	4,852	49.1	2,337	35.7	227	49.1	---	---
New Jersey.....	11,255	7,872	3,084	299	---	15,210	52.6	6,499	44.3	560	50.3	---	---
New Mexico.....	6,043	3,084	2,616	159	184	4,892	63.0	3,976	65.7	237	64.5	311	58.6
New York.....	80,195	40,353	31,285	1,501	7,055	93,221	44.9	83,544	39.8	3,682	42.1	15,436	42.4
North Carolina.....	20,494	12,576	6,354	1,246	318	17,488	71.2	9,114	69.5	1,966	63.0	241	62.7
North Dakota.....	4,109	2,916	1,078	42	72	5,908	50.3	2,419	43.8	85	49.1	126	48.7
Ohio.....	49,692	39,512	8,476	1,344	359	71,280	55.6	14,127	58.9	2,381	57.0	576	54.7
Oklahoma.....	43,141	32,225	10,027	890	---	56,730	57.6	16,402	63.8	1,624	56.0	---	---
Oregon.....	10,852	8,043	2,298	142	369	15,951	50.1	5,342	41.9	321	44.4	730	40.5
Pennsylvania.....	52,784	24,949	25,633	1,572	630	45,100	56.9	54,520	47.2	6 8,011	6 20.2	2,017	7 22.4
Puerto Rico ¹	1,419	751	607	22	40	1,399	50.0	1,014	50.0	45	50.0	---	---
Rhode Island.....	5,113	3,125	1,928	60	---	5,813	53.1	3,936	46.5	127	47.9	---	---
South Carolina.....	11,973	8,956	2,171	368	478	12,644	69.9	3,004	71.6	546	67.1	567	64.0
South Dakota.....	5,012	3,669	1,275	68	---	6,211	61.8	2,138	60.3	107	62.5	---	---
Tennessee.....	23,296	16,585	10,911	800	---	24,910	65.9	14,887	69.5	1,259	62.8	---	---
Texas.....	70,480	59,820	8,682	1,977	---	91,667	64.7	10,799	71.8	2,891	62.5	---	---
Utah.....	5,632	3,223	1,904	73	433	5,731	57.0	3,914	46.9	135	54.5	787	46.1
Vermont.....	2,502	1,933	487	56	27	3,095	63.4	709	67.3	90	62.3	19	71.1
Virgin Islands ²	54	35	14	3	2	8 65	50.0	50.0	50.0	8 5	50.0	8 3	50.0
Virginia.....	8,915	4,201	3,871	404	439	5,765	70.4	5,524	67.8	614	65.0	538	57.8
Washington.....	33,195	26,027	6,257	301	609	56,459	44.4	16,501	37.7	780	38.4	2,105	37.7
West Virginia.....	15,559	6,202	8,981	281	95	8,966	67.8	12,915	67.8	418	65.3	52	61.1
Wisconsin.....	22,123	16,346	4,987	501	289	31,984	51.6	11,970	39.7	920	51.6	647	31.6
Wyoming.....	2,103	1,595	377	38	93	3,098	50.4	790	45.9	71	50.7	187	52.2

¹ For 1951 includes vendor payments for medical care.

² Amounts of Federal grants certified in fiscal year; differ slightly from fiscal-year expenditures from Federal funds reported by States.

³ Program initiated in October 1950 under Public Law 734.

⁴ Alaska does not administer aid to the blind.

⁵ No approved plan in operation.

⁶ Approved by the Social Security Administration to receive Federal participation beginning February 1951.

⁷ Estimated.

⁸ Expenditures for administration estimated.

Table 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1951¹

[In thousands]

State	Maternal and child health services			Services for crippled children			Child welfare services
	Total	Fund A	Fund B	Total	Fund A	Fund B	
United States	\$12,854.3	\$6,574.9	\$6,279.4	\$9,665.8	\$4,723.5	\$4,942.3	\$5,538.0
Alabama	490.2	142.9	347.3	324.7	107.3	217.4	191.5
Alaska	113.9	52.1	61.8	118.2	47.9	70.3	31.3
Arizona	152.9	63.0	89.9				45.9
Arkansas	296.9	112.4	184.5	307.5	85.5	222.0	174.0
California	391.8	314.2	77.6	232.9	197.4	35.5	130.6
Colorado	214.0	85.1	128.9	77.0	66.8	10.2	67.7
Connecticut	117.1	93.1	24.0	178.8	85.1	93.7	76.5
Delaware	72.6	42.2	30.4	37.6	16.2	21.4	31.6
District of Columbia	169.4	71.7	97.7	168.0	58.9	109.1	24.3
Florida	251.9	114.5	137.4	136.4	87.1	49.3	83.4
Georgia	519.3	151.0	368.3	269.8	110.2	159.6	125.2
Hawaii	137.1	64.7	72.4	158.2	57.4	100.8	39.4
Idaho	93.3	66.5	26.8	83.3	56.6	26.7	27.4
Illinois	315.8	252.6	63.2	239.7	161.8	77.9	186.9
Indiana	298.1	175.8	122.3	177.5	110.6	66.9	61.6
Iowa	128.1	85.0	43.1	190.4	89.5	100.9	82.8
Kansas	145.0	95.9	49.1	106.6	74.1	32.5	139.6
Kentucky	412.5	133.9	278.6	323.3	102.2	221.1	221.9
Louisiana	364.3	129.6	234.7	222.8	97.3	125.5	132.6
Maine	108.9	82.5	26.4	95.7	60.4	35.3	46.4
Maryland	317.1	107.7	209.4	254.9	82.3	172.6	67.0
Massachusetts	228.2	156.2	72.0	211.8	116.6	95.2	41.2
Michigan	391.3	215.8	175.5	264.3	151.2	113.1	178.2
Minnesota	231.5	131.6	99.9	190.4	95.5	94.9	95.2
Mississippi	337.9	115.5	222.4	251.4	83.5	167.9	151.9
Missouri	274.7	171.2	103.5	272.3	109.2	163.1	169.8
Montana	101.1	74.2	26.9	86.1	37.7	48.4	61.9
Nebraska	102.9	78.6	24.3	88.6	48.2	40.4	72.3
Nevada	67.0	40.1	26.9	30.8	9.1	21.7	27.3
New Hampshire	73.5	49.3	24.2	62.2	40.6	21.6	48.0
New Jersey	205.6	183.3	22.3	203.5	112.5	91.0	60.3
New Mexico	153.8	71.4	82.4	80.7	59.0	21.7	45.0
New York	433.2	381.9	51.3	305.1	251.6	53.5	163.9
North Carolina	572.5	169.5	403.0	337.7	123.6	214.1	214.7
North Dakota	93.7	66.9	26.8	79.0	57.3	21.7	45.1
Ohio	422.6	259.7	162.9	258.9	169.7	89.2	173.1
Oklahoma	179.0	111.7	67.3	235.1	89.8	145.3	156.3
Oregon	121.2	87.3	33.9	92.5	71.0	21.5	66.1
Pennsylvania	507.6	302.7	204.9	298.5	202.0	96.5	157.9
Puerto Rico	396.5	142.2	254.3	254.1	100.1	154.0	176.7
Rhode Island	94.6	65.0	29.6	108.5	44.5	64.0	33.9
South Carolina	301.3	112.4	188.9	284.3	90.7	193.6	193.8
South Dakota	58.0	34.6	23.4	82.2	57.6	24.6	73.9
Tennessee	482.0	139.3	342.7	286.9	108.2	178.7	145.4
Texas	594.1	288.4	305.7	455.2	181.4	273.8	267.9
Utah	116.2	69.9	46.3	109.9	59.6	50.3	40.8
Vermont	80.6	60.0	20.6	77.2	50.5	26.7	50.9
Virgin Islands	76.0	49.1	26.9	70.5	48.8	21.7	36.9
Virginia	370.0	161.5	208.5	257.3	106.2	151.1	146.2
Washington	204.9	110.3	94.6	160.0	84.7	75.3	56.6
West Virginia	256.0	103.0	153.0	215.3	85.0	130.3	179.6
Wisconsin	162.9	96.5	66.4	218.7	101.6	117.1	177.1
Wyoming	53.7	39.4	14.3	33.5	21.9	11.6	42.5

¹ Based on checks issued.

Table 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding Dec. 31, 1935–50

Year	Number of reporting credit unions ¹	Number of members	Amount of assets	Amount of shares	Amount of loans
1935	762	118,665	\$2,368,521	² \$2,224,608	\$1,830,489
1936	1,725	307,651	9,142,934	² 8,496,526	² 7,330,248
1937	2,296	482,441	19,249,738	² 17,636,414	² 15,683,676
1938	2,753	631,436	29,621,501	26,869,367	23,824,703
1939	3,172	849,806	47,796,278	43,314,433	37,663,782
1940	3,739	1,126,222	72,500,539	65,780,063	55,801,026
1941	4,144	1,396,696	105,656,839	96,816,948	69,249,487
1942	4,070	1,347,519	119,232,893	109,498,801	42,886,751
1943	3,859	1,362,363	126,948,085	116,988,974	35,228,153
1944	3,795	1,303,801	144,266,156	133,586,147	34,403,467
1945	3,757	1,216,625	153,103,120	140,613,962	35,155,414
1946	3,761	1,302,132	173,166,459	159,718,040	56,800,937
1947	3,845	1,445,915	210,375,571	192,410,043	91,372,179
1948	4,058	1,628,339	258,411,736	235,008,368	137,642,327
1949	4,495	1,819,606	316,362,504	285,000,934	186,218,022
1950	4,984	2,126,823	405,834,976	361,924,778	263,735,838

¹ For 1945–50 the number of operating and reporting credit unions was the same. In other years, the number of credit unions reporting was less than the number in operation.

² Revised.

Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1950, and Dec. 31, 1949

Assets and liabilities	Amount			Percentage distribution	
	Dec. 31, 1950	Dec. 31, 1949	Change during year	Dec. 31, 1950	Dec. 31, 1949
Number of operating Federal credit unions.....	4,984	4,495	489		
Total assets.....	\$405,834,976	\$316,362,504	\$89,472,472	100.0	100.0
Loans to members.....	263,735,838	186,218,022	77,517,816	65.0	58.9
Cash.....	42,164,300	32,529,318	9,634,982	10.4	10.3
U. S. Government obligations.....	65,126,463	68,752,813	-3,626,350	16.0	21.7
Federal savings and loan shares.....	25,997,752	22,749,795	3,247,957	6.4	7.2
Loans to other credit unions.....	6,535,377	4,558,368	1,977,009	1.6	1.4
Other assets.....	2,275,246	1,554,188	721,058	.6	.5
Total liabilities.....	405,834,976	316,362,504	89,472,472	100.0	100.0
Notes payable.....	13,271,792	8,868,787	4,403,005	3.3	2.8
Accounts payable and other liabilities.....	1,000,365	765,139	235,226	.3	.3
Shares.....	361,924,778	285,000,934	76,923,844	89.2	90.1
Reserve for bad loans.....	12,356,142	9,609,775	2,746,367	3.0	3.0
Special reserve for delinquent loans.....	563,212	358,523	204,689	.1	.1
Undivided profits.....	16,718,687	11,759,346	4,959,341	4.1	3.7

Public Health Service

GOOD HEALTH for Americans is a matter of vital national concern. It is a concern which is manifested in the framework of the Nation's health organizations—in the States and Territories, in local communities, in our large voluntary health organizations, and in the Federal Government through the Public Health Service.

This interest in health stems from the fact that the United States as a nation is dedicated to the individual—to enlarging his opportunities and to promoting his well-being. A healthy population is recognized as the basic source of our national strength.

Indeed, in the present emergency, nothing—save freedom itself—is so vital to the Nation as the continuing good health of its people.

Emergency Health Service

The impact of the national emergency has been felt with increasing intensity by the Nation's health organizations. As the Federal Government's principal source of highly trained personnel and facilities for the development and operation of health and medical programs for the civilian population, the Public Health Service has been concerned greatly during 1951 with problems connected with the emergency. In addition to discharging its normal function of safeguarding and promoting better national health, the Service has responded to increasing demands for advice and counsel, for the loan of experts, and for the staffing and conduct of special projects.

As will be indicated throughout this report, these demands have been many and various. They have ranged from assignments of personnel to foreign service projects conducted by other branches of the Federal Government to the development, in collaboration with still other agencies, of defenses against biological warfare. The impact of our expand-

ing defense industry on civilian health facilities and agencies, the health problems which have emerged in extracantonment areas as the armed forces have increased their strength, the demand for enlargement of research on blood and blood derivatives illustrate the scope of the Service's interests and activity in the area of national defense.

These special health problems should not, of course, be considered as distinct in themselves. Although they have grown out of a situation of emergency, their resolution will also contribute to our total national skills in research and to the development of techniques for prevention and early treatment of disease.

Coupled with the continued development of those long-range, established programs which are the core of the Public Health Service's work, they will add momentum to the steady increase in health gains which the Nation has enjoyed during the past 50 years.

The Nation's Health

During 1950, these gains in the national strength continued.¹ The estimated death rate of 9.6 per 1,000 population was the lowest ever recorded for the Nation, and a 10-percent lower death rate than in 1940. Heart disease and cancer continued as the foremost killers, accounting respectively for 354 and 140 deaths per 100,000 of our population. Together, cancer and the cardiovascular-renal diseases (including diseases of the heart, vascular lesions of the central nervous system, general arteriosclerosis, and chronic nephritis) caused more than two-thirds of the deaths in 1950. The slight increase in mortality from these chronic maladies in recent years actually reflects progress in combating other forms of illness; for cancer and the cardiovascular-renal diseases are associated with the gradually advancing age of the population, which, in turn, stems from marked gains in life expectancy. While an American born in 1900 could expect to live only 47 years, his descendants born in 1949 have an expectancy of 68 years.

The longer life line for the average man may be traced, in large part, to steady reductions in the death rates for the infectious and communicable diseases. For example, the estimated death rate from tuberculosis in 1950 was 22 per 100,000 population, about 50 percent less than the rate 10 years earlier. Gains in the fight against communicable diseases are shown also by the decline in reported cases during 1950. Smallpox incidence in the United States reached a new low of 42 cases; and statistics showed a steady downward trend in diphtheria and typhoid fever. For most other communicable diseases, reported cases fell below the 5-year median (1945-49). In-

¹ All vital statistics are given for the calendar year.

fluenza, pneumonia, meningococcic meningitis, amebic dysentery, and whooping cough were above the expected incidence. The 33,209 cases of poliomyelitis reported in 1950 represented, however, a 21-percent decrease from the all-time high of 42,173 cases for 1949.

There were 1,669,934 marriages in 1950, according to preliminary reports, an increase of 6 percent over the 1949 total. At the same time there was a drop in the number of divorces, from 397,000 in 1949 to an estimated 385,000 in 1950.

Nothing better illustrates the importance of broadened health resources and improved medical care than the record of infant and maternal mortality, both of which, in 1950, dropped to the lowest point ever reached in the United States. Infant mortality has fallen from 100 per 1,000 births in 1915 to an estimated 29 per 1,000 in 1950, while maternal deaths have dwindled from 57 per 10,000 live births in 1936 to an estimated 7 per 10,000 births last year. In 1950, an estimated 3,548,000 live births were registered. While no figures are yet available on the proportion of these deliveries made in hospitals, the trend in this respect is unmistakably clear. In 1949, 86.7 percent of all registered live births occurred in hospitals or institutions, and 95 percent of all live births were attended by physicians; while in 1935, the comparable proportions were only 36.9 and 87 percent, respectively.

The Public Health Service

Behind these advances toward longer and healthier American lives was the research of medical scientists and the expansion of hospital and health facilities. The steady drive against diseases and environmental hazards that sicken, cripple, or kill goes forward on every level—local, State, national, and international.

The United States Public Health Service plays a crucial part in this campaign. Its staff and its bureaus insure coordination of the multifarious efforts to stalk and conquer disease, conducting and stimulating research, aiding in the extension of health services and resources, and offering information and guidance to local and State agencies.

The Public Health Service employs about 17,000 persons. Of this total, 3,000 are physicians, dentists, veterinarians, sanitary engineers, and nurses. Another 500 are scientists with Ph.D. degrees. The remainder, numbering 13,300, constitute allied and supporting personnel. As of June 30, 1951, there were 1,263 regular and 1,162 reserve officers of the Commissioned Corps on active duty. In view of the national emergency with its extraordinary demands on trained health workers, the Service is attempting, wherever possible, to conserve professional manpower by utilizing less scarce types of personnel. Nonprofessional workers, for example, are now handling

many of the administrative procedures. Physicians and scientists engaged in research are assisted by qualified technicians, and sanitary engineers by sanitarians. Public Health Service hospitals are gradually increasing their complement of qualified practical nurses.

In the fiscal year 1951, the Public Health Service administered a total of \$332 million in appropriations and authorizations. Nearly two-thirds of this sum was allocated in grants to agencies, institutions, and individuals outside the Federal Government. Six percent was devoted to the construction of needed facilities for the Public Health Service. The remainder covered the entire internal operations of the Service—its hospitals, medical-care programs, quarantine service, demonstrations, research activities, collection and reporting of vital statistics, technical aid to the States, and administration. Tables 1 and 2 present detailed information on the personnel and finances of the Service.

In matters of broad interest in the field of national defense, the Public Health Service during the year gave special assistance to the Department of Defense, the Selective Service System, the Atomic Energy Commission, the National Security Resources Board, the Office of Defense Mobilization and its constituent agencies, the National Research Council, the Federal Civil Defense Administration (FCDA), and other Federal agencies whose programs contain health and medical aspects with which the Service is uniquely equipped to deal.

The Public Health Service has devoted a great deal of its time and talents to the development of civil defense plans. Task forces of Service experts prepared the health and medical sections of the manual, U. S. Civil Defense, and the manual, "Health Services and Special Weapons Defense." The Emergency Health Planning Unit in the Office of the Surgeon General maintained almost full-time liaison with FCDA, the National Security Resources Board, and special committees of these agencies.

In the larger sense, however, as has been indicated, virtually all of the Service's activities add to the Nation's defense by adding to its health and productivity. The effort to win better health for the people of the United States must go forward on many fronts. The victory over cancer is still to be achieved. Much ground is yet to be won in the fight against heart disease. While research has pointed the path to progress in the drive against the arthritic ailments which cripple millions of Americans, this new opportunity has yet to be fully exploited. And while the total war against disease and impairment goes on, new hazards to health—some of them associated with industries crucial to defense—emerge each year in the American

environment. For the Public Health Service and for the innumerable agencies and individuals who are its allies in the campaign for good health, the achievements recorded in this report—like the achievements of the past—point the way to new problems and new accomplishments.

The Frontiers of Medical Knowledge

Progress in health depends to a large extent on the disciplined search for more knowledge about disease. The National Institutes of Health, at Bethesda, Md., constitutes the principal research arm of the Public Health Service and provides a center for coordination of research interests outside the Service.

The passage of Public Law 692 by Congress in August 1950, was a significant contribution to the development of the Public Health Service's research program. This law established two new institutes—the National Institute of Neurological Diseases and Blindness and the National Institute of Arthritis and Metabolic Diseases, the latter assuming the functions of the Experimental Biology and Medicine Institute, which was abolished. The creation of these new institutes prefaces a broader program of scientific investigation into such metabolic diseases as arthritis, rheumatism, diabetes, and peptic ulcers, and such neurological and sensory diseases as cerebral palsy, epilepsy, multiple sclerosis, glaucoma, and cataracts.

The same law authorized the Surgeon General of the Public Health Service to expand the functions of existing institutes or to establish additional institutes when necessary to study specific health problems. This provision is important in a period when new scientific discoveries frequently demand rapid shifts or extensions of research programs. Recent developments, for example, which indicate the value of radioisotopes and ACTH and cortisone as research tools have opened up whole new areas of investigation into many of our major health problems. Public Law 692 gives the Public Health Service the administrative flexibility necessary to meet such new challenges promptly.

The conversion of the law's provisions into operating programs was well under way by the close of fiscal 1951.

Public Law 692 also strengthened the Public Health Service's own research program by authorizing the establishment of 30 additional positions in the professional and scientific service at a higher level of compensation than has been possible in the past. As will be indicated, this law also broadened the membership of the seven Advisory Councils dealing with research grants.

On October 1, 1950, Assistant Surgeon General R. E. Dyer retired after 34 years in the Public Health Service. During the last 8, he had served as Director of the National Institutes of Health and guided the expanding research program at Bethesda, Md., with wisdom and distinction. Dr. Dyer's successor is Dr. W. H. Sebrell, Jr., formerly Director of the Experimental Biology and Medicine Institute.

The Clinical Center

The work of the scientists at the National Institutes of Health includes both research in the problems of a particular disease or disorder and research concerned with very general functions and structures of the human mechanism. Both are performed largely in the laboratory. The Public Health Service's Clinical Center, a 14-story research hospital which will be ready for occupancy early in 1953, will give the National Institutes of Health its first opportunity to conduct clinical research on a relatively large scale. With the mounting complexity of scientific research, the laboratory investigator and the clinical investigator have tended to become widely separated in both space and time. Findings made in the laboratory by one man are tested in the hospital or clinic by another; and the interlude between an original investigation and its clinical validation may be a matter of several years. The Clinical Center, which will have in immediate proximity to its 500 patients the resources needed both for clinical research and for basic laboratory investigations, will provide a special opportunity for making valid clinical studies on the basis of findings made in the Public Health Service laboratories and elsewhere.

The Research Facilities Planning Branch, which is responsible for planning the Institutes' comprehensive building program, reported that construction on the Clinical Center building was 59 percent completed at the end of fiscal year 1951. On June 22, 1951, the President of the United States participated in the laying of the cornerstone. "The fine record of Public Health Service research workers promises well for the future," President Truman declared on that occasion. "This magnificent building will give them many new opportunities to forge ahead in the field of medical discovery."

The Surgeon General expressed the goals of the Service for the operation of the Center in his address at the cornerstone ceremony. "Our plan is to operate this center so that medical investigators from all over the country may come here for short or long periods—to observe, to engage in our research programs, or to widen their perspective and that of our staff. We want the work done here to be of national interest, national participation, and national pride. We intend to make it so."

Research Grants and Fellowships

The functions of the National Institutes of Health reach far beyond the laboratories at Bethesda, Md. The Institutes are largely responsible for the administration of the extensive research grants program of the Public Health Service. The objectives of this program are to give financial support to medical and allied research in the Nation's research institutions, to encourage research in neglected subject areas, and to provide training for scientific personnel.

Seven National Advisory Councils, made up of non-Federal scientists and representative citizens with experience in national affairs, assist in this administrative task.² These councils review all applications for grants in their special research fields and make recommendations to the Surgeon General on their acceptability. By a provision of Public Law 692, this advisory structure was altered in 1950 to insure greater flexibility and effectiveness. Each of the seven councils now includes six members outstanding in public affairs and education, as well as six distinguished scientists. Policies governing the distribution of grants, therefore, are determined after careful consideration by well-balanced groups with a broad perception of both public and scientific needs.

During fiscal year 1951, the councils considered 2,283 applications, of which 1,724, totaling \$17,304,529, were approved by the Surgeon General for payment during the year.

SCOPE OF RESEARCH SUPPORTED BY GRANTS

The Division of Research Grants at the National Institutes of Health, in addition to coordinating the research grants program, administers those grants that are not within the purview of a particular institute. The Division, during 1951, administered 595 grants in the amount of \$5,513,617.

In the field of physiology, emphasis in grant applications has been shifting toward neurophysiology and sensory diseases. Approximately one-third of the requests in this field in 1951 proposed studies in these specialties.

Investigators in morphology and genetics are increasingly engaging in studies of cell physiology and chemistry. The relation between cell chemistry and cell structure is being studied by isolating cellular constituents and determining their biological properties. Relations

² National Advisory Cancer Council, National Advisory Mental Health Council, National Advisory Heart Council, National Advisory Dental Research Council, National Advisory Arthritis and Metabolic Diseases Council, National Advisory Neurological Diseases and Blindness Council, National Advisory Health Council.

between the nucleus and cytoplasm of the cell under different conditions are also being investigated.

Progress was reported in the correction of heart abnormalities, particularly in dealing with mitral stenosis. In other surgery projects advances were made in skin and bone grafting and in wound healing. Support was also given to new projects in the field of shock.

In pharmacology, research projects to determine the fundamental nature of drugs are numerous. Many investigations have concerned analgesics. One project being carried on during the fiscal year yielded sensitive methods for identifying and measuring morphine and similar drugs present in body tissues following therapeutic dosage. Studies of the barbiturates and certain drugs used against epilepsy which are also under way could lead to the synthesis of better agents and to improvement in the treatment of drug poisoning.

Projects in tropical medicine are focused on the search for chemotherapeutic agents against amebiasis, malaria, schistosomiasis, and onchocerciasis. Despite advances in the treatment of malaria during the war, this remains the most important disease in tropical regions. Improved methods for suppression and cure have been developed.

In the field of environmental health, progress continues in the study of sanitation, water supplies, and related problems. Attempts are being made to develop more economical methods for bacteriological, chemical, and physical analyses in the fields of water supply and sewage disposal. Air hygiene is receiving attention, particularly with regard to asbestos and chromate dusts as possible agents of lung cancer in industrial workers.

Fundamental investigations in biochemistry and nutrition are increasing, with a view to tracing the processes leading to normal as well as abnormal conditions. Studies in this area concern, for example, nutritional factors in the origin and growth of tumors, the nutritive requirements of micro-organisms, and the biochemical basis for development of resistance by mouse leukemias to folic acid antagonists.

The Division during the fiscal year sponsored a number of seminars on specific research problems, including one on metabolic disturbances during surgical treatment and one on recent advances in the study of venereal diseases.

RESEARCH FELLOWSHIPS PROGRAM

Through the Research Grants Division of the National Institutes of Health, the Public Health Service continued its program of awarding fellowships to aid in developing competent research workers in the medical and related sciences. During the past fiscal year, 1,170 applications for fellowships were received and 549 were awarded. The awards comprised 225 predoctorate, 296 postdoctorate, and 28 special

fellowships. At present, there are 442 fellows receiving support at 71 institutions in 32 States, the District of Columbia, and 8 foreign countries.

RESEARCH MANPOWER

In February 1951, the National Advisory Councils met in joint session and made the following recommendations as to research manpower needs and policies in the present national emergency:

(1) Because adequate levels of highly trained manpower for national defense would not be maintained under the Universal Military Training and Service bill before Congress, provision should be made, either through deferment or selection after induction, for study in the physical and natural sciences, engineering, and related fields.

(2) The medical and health fields should be represented on the board established by the President for the selection of inductees.

(3) Reserve policies should be promulgated to clarify the status of thousands of scientists.

(4) The research grant policy of the Public Health Service should continue to be the support and stimulation of studies of medicine and allied sciences.

"The continuity of basic research is the foundation and first requirement of all applied research necessary to maintain the national health in times of emergency," the Councils observed.

Microbiological Research

The Microbiological Institute, in collaboration with the Communicable Disease Center in Atlanta, Ga., drew up plans during the year to hold a series of meetings with laboratories throughout the country in the interests of expanding investigation of many virus, rickettsial, mycotic, exotic bacterial, and veterinary diseases transmissible to man.

These meetings are aimed ultimately at the development of faster, more accurate identification of disease agents, better immunization procedures both before and after exposure, and better modes of treatment for such diseases. The laboratories are experienced in diagnostic and control procedures, and will also act as a network to materially strengthen the Nation's defenses against communicable diseases and, in collaboration with the Federal Civil Defense Administration, against biological warfare.

Through the Influenza Study Program, a trial run was undertaken this past year to determine how quickly a vaccine might be produced in sufficient quantity to help prevent Nation-wide epidemics of especially virulent strains of influenza virus. Using a virus strain flown

from England last January, 1,000 doses of a vaccine were produced by one laboratory within 21 days; another in 23 days. The coordination developed between the Influenza Study Program and the commercial drug manufacturers in this trial run provided the Public Health Service with a mechanism that may be extremely useful in the event of epidemic emergencies.

The Microbiological Institute, in its own laboratories, developed a quick, simple diagnostic test for trichinosis which may prove to be applicable to many other diseases. The test requires only a few minutes and may be performed without special equipment or specially trained technicians, in contrast to most of the older diagnostic tests which require several days and highly trained personnel.

During fiscal year 1951, the National Microbiological Institute made a number of other significant contributions.

Among them were methods for speeding the processing of blood plasma and assuring better sterilization. A monitoring device for constantly measuring and recording the output of ultraviolet light was developed which makes possible the maintenance of irradiation at levels sufficient for plasma sterilization. A special pump for delivering a constant and steady flow of plasma within a sterile closed system was also devised which will greatly simplify and expedite the processing of plasma. Both show promise for commercial use.

A method also has been found to adapt the Leon strain of poliomyelitis to mice. Further work is being carried out to make this adaptation complete enough for practical laboratory use.

A fairly widespread disease of childhood—herpangina—has been recently rediscovered, almost 30 years after it was first reported, and its causative agent isolated. The disease, which is caused by the Coxsackie group A viruses, was first described in 1948. Further experiments with Coxsackie virus carried on through the Microbiological Institute have revealed that, contrary to popular belief, these viruses do not cause illnesses similar to or identical with poliomyelitis.

In preliminary tests of vaccines which might be used in the control and prevention of Q fever in dairy herds, it was found, through blood tests of vaccinated and nonvaccinated cows, that three times as many nonvaccinated cows were infected. In examination of their milk for Q fever infection, five times as many nonvaccinated cows showed evidence of infection.

Experimental work with penicillin, undertaken by the Institute to discover why treatment with antibiotics sometimes unaccountably fails, indicates that while penicillin may cure a new infection in 2 to 4 hours, it may fail to cure an old infection of the same disease even when treatment is continued for 72 to 96 hours. Such failures—found true to a lesser extent in treatment with aureomycin and chloro-

mycetin—are apparently due to the fact that in old infections the organisms are not actively multiplying and are therefore not susceptible to the drug's action.

SPONSORED RESEARCH IN MICROBIOLOGY

During fiscal year 1951, the National Microbiological Institute undertook an extramural program for the administration of research grants and research fellowships in the major fields of microbiological research. At the June meeting of the National Advisory Health Council, which continued to review grants in this field as well as in those areas which are not the functional responsibility of the categorical institutes, 66 research grants were awarded totaling \$542,942. Part of this amount was allocated to the sectional laboratories already mentioned which are participating in the expanded Public Health Service program for defense against the communicable diseases.

Arthritis and Metabolic Diseases

To promote more extensive research in the field of arthritis and rheumatism—chronic illnesses that afflict an estimated 7 to 8 million persons in this country—the National Institute of Arthritis and Metabolic Diseases was created on November 22, 1950.

In few fields is the need for research more acute. According to insurance statistics, nearly 9 percent of all sickness and 15 percent of absence from work among wage earners are due to arthritis. It is the world's greatest crippler.

In preparation for its expanded responsibilities, the new Institute has appointed a chief for clinical research and a chief for extramural programs. Limited programs have been launched in each of these areas.

RESEARCH FINDINGS

Investigations of shock and radiation injury, inaugurated by the former Experimental Biology and Medicine Institute, have continued in the past year. Clinical evaluation has begun of the value of salt and soda in the treatment and prevention of shock in badly burned individuals. It has been shown in experiments with mice that oral saline prevents death from traumatic shock without causing substantial early changes in circulatory disturbances.

In collaborative studies with the Naval Medical Research Institute, scientists have been able to isolate good quantities of apparently unaltered blood platelets from dogs, guinea pigs, and humans. Prevention of hemorrhage, one of the principal hazards of radiation injury, by transfusion of these platelets has proved successful in experi-

mental animals. Further progress has been made in studies of the mechanism of radiation injury and in the evaluation of antibiotics for combating this condition.

Test methods have also been developed for small amounts of ACTH and cortisone, which will be of great assistance in metabolic studies involving these important drugs. An enzyme system prepared from adrenal glands has been shown to transform other adrenal steroids to compound F, one of the two steroidal hormones (the other is cortisone) which are effective in the treatment of arthritis. The search for plant sources of starting materials for the manufacture of cortisone and other useful steroids has continued. Studies have demonstrated that tomatidine, readily obtainable from the tomato plant, can serve for the production of steroidal sex hormones and, possibly, cortisone. Solasodine has been found to have similar value.

The drug N-allylmorphine has proved to be of value in counteracting the harmful effects to the fetus of morphine or other analgesics given the mother. This may have considerable importance in human obstetrics.

Progress has continued in research in the field of nutrition. Scientists have shown in experimental animals that large amounts of ascorbic acid (vitamin C) or small amounts of antibiotics reduce greatly the dietary need for most of the B vitamins. A new factor which supplies protection against dietary liver injury has been demonstrated. Two new compounds of biological importance have been obtained in essentially pure form: the so-called "citrovorum factor," and a metabolite containing glutamic acid which appears in the urine of animals treated with sulfasuxidine, causing a deficiency in folic acid. It also has been demonstrated that diets containing abnormally large amounts of iron, when fed to rats, led to anemia and other blood conditions which may be corrected with folic acid.

It has been demonstrated that the thyroid gland has a controlling influence on the synthesis of protein. These studies have indicated that rats whose thyroids have been removed have responded to force feeding by increased accumulations of fat but not by bone growth or protein deposition.

Electron microscopy has provided deeper insight into the nature of viruses and the way in which they grow and multiply. A new method of measurement, some 100 times more sensitive than that in previous use, has permitted studies of photosynthesis which may explain the low quantum values widely discussed in recent months.

RESEARCH GRANTS

The newly formed National Advisory Arthritis and Metabolic Diseases Council reviewed 55 applications for research grants in the past

year. Forty-four of these were recommended by the council and approved by the Surgeon General. The grants totaled \$533,656 and went to 33 institutions in 16 States and 1 foreign country.

The Fight Against Cancer

Research in the National Cancer Institute's laboratories and cooperating clinics, cancer control activities, and support of research in non-Federal institutions progressed steadily during the past year. The program of clinical investigation, expanded in 1949-50, continued to provide cancer patients with the latest benefits of medical science while permitting bedside study of the disease.

Highlights of the year, apart from laboratory and control activities, included the first national conference on cancer diagnostic tests; progress in the analysis of cancer morbidity data collected in a survey of several metropolitan areas; and publication of a 329-page monograph compiling the chief references to studies on tumor chemotherapy in the world's literature.

CANCER RESEARCH

Little by little, contributions are made to the stockpile of knowledge about cancer. The findings reported below indicate a few of the advances made in cancer research during the year.

Treatment with folic acid antagonists gives leukemic animals only temporary relief, but administration of more than one antileukemia agent at a time shows encouraging results.

Studies of metabolism have shown that the oxygen consumption of tumor cells decreases markedly when they are placed in a solution containing salt at normal blood levels; that cancer tissue and the tissues of cancer-bearing animals synthesize iron-containing compounds to a lesser extent than do tissues of the normal animal; and that the intracellular particles known as mitochondria consist largely of proteins, of which the most prominent in normal liver cells is absent from cancerous ones.

In cancer virus studies, wild house mice were shown to carry the mammary tumor agent found in certain highly inbred strains of laboratory animals.

A "therapeutic index" was determined for approximately 200 compounds previously shown to damage tumors in mice when administered at a near lethal dose. The 46 chemicals with the highest index will be studied further.

When irradiation of animals was followed by intravenous injection of homologous bone marrow, survival was greatly enhanced. These studies may lead to a method of preventing injury during irradiation

therapy and may increase the chances of survival following irradiation from atomic bombing. Also of possible clinical value is the finding that the sensitivity of a lymphosarcoma in the mouse can be altered by keeping the animal under oxygen prior to and during irradiation.

It was discovered that leucocytes are removed from the blood by some mechanism within the pulmonary circulation, and that impairment of this mechanism is one of the factors involved in the high leucocyte count in leukemia.

A possible aid in diagnosis when the symptoms include jaundice or enlargement of the liver is the finding of a chemical difference in the blood of patients with liver cancer and of those with certain other liver diseases. Studies are under way to evaluate such a test.

It was observed that administration of the hormone progesterone will induce regression of cancer of the cervix and diminish pain and bleeding.

Several important tools and techniques for research were developed during the fiscal year. One is a high-precision automatic interference refractometer, which may provide a method for separating and analyzing proteins that cannot be separated by other means. Another is a new method for producing transplantable thyroid tumors in mice. Still another is a technique by which cells from glandular epithelial tumors can be made to reproduce the glandular structure in tissue culture—a finding that may aid pathologists in diagnosis.

CANCER RESEARCH GRANTS AND FELLOWSHIPS

Research studies outside the Federal Government through grants to private institutions continued. Approximately \$3,900,000 was recommended to support projects in 134 institutions in 35 States, the District of Columbia, Puerto Rico, and 6 foreign countries. Cancer research facilities were expanded through completion of 24 construction projects receiving grant support, and construction of 22 others was begun with funds previously obligated. Training and experience in cancer research were provided through the award of fellowships to 173 persons.

CANCER CONTROL

A total of \$3,200,000 was allotted to support the official cancer control activities of the States, Territories, District of Columbia, and Puerto Rico. Provision of better diagnostic and treatment service, the basic objective of these activities, was advanced through teaching grants to 124 medical and other educational institutions; through 113 clinical traineeships to physicians; and through educational activities in cancer nursing. A major contribution was the monograph, "Can-

cer Nursing in the Basic Professional Nursing Curriculum," prepared by a committee sponsored by the Institute.

In an effort to improve knowledge in the cancer control field, 64 special projects were aided with grants totaling \$980,000. The search for new diagnostic tools received extensive support, with appreciable gains in this area. Investigations of environmental factors related to cancer causation were also emphasized. These studies elucidated the relation of finely dispersed metallic nickel powder to the causation of cancer in rats.

Two new educational films, "Breast Self-Examination" and "Gastro-intestinal Cancer," were produced jointly with the American Cancer Society. Approximately 1,000 prints of "Breast Self-Examination" have been sold—more than 4 times the sale of any previous film in the public health field. It has been viewed by nearly a million women.

The National Heart Program

Advances on many fronts marked the third year of the National Heart Institute, established in 1948 to lead and coordinate the Public Health Service's program dealing with heart disease. In intramural research, considerable progress was made toward increasing basic and clinical knowledge of the underlying disease processes affecting the heart and circulation. Through a comprehensive grants program, expanding research activities in universities and hospitals throughout the Nation were fostered and supported. Significant gains were also made in training in both the research and clinical aspects of the heart diseases. Through cooperative efforts with the Bureau of State Services, the public health control of heart disease was stimulated and moved steadily forward in many States and local communities.

The impact of heart disease on national health is great. It accounts for one out of every two deaths. Nearly 10 million Americans have heart disease. The suffering, disability, and economic loss resulting from it are incalculable. The eventual solution of the heart disease problem depends largely upon the discovery of new knowledge concerning its causes, prevention, treatment, and cure. Hence the principal emphasis of the National Heart Institute is on research.

ADVANCES IN HEART RESEARCH

The cause of arteriosclerosis and coronary artery disease is a subject which researchers have approached on several lines. Investigators variously hold that the fundamental metabolic defect which results in the sclerotic or hardening process in arteries is one that precludes normal handling of cholesterol, fosters the formation of large protein-

fat complexes in blood plasma, or impairs the ability to regulate phospholipid metabolism. Institute investigators premise that the three possibilities are interrelated one with another, with metabolic handling of small energy yielding particles and with the synthesis of abnormal protein molecules. Their approach has developed chemical methods for the estimation of serine, ethanolamine, and choline, which are the basic building blocks of the fatty substances in the body called phospholipids. The methods will permit, for the first time, a definite study of the individual components of the four distinct types of phospholipids.

While the major cause of hypertension is not known, the simple lowering of blood pressure is conducive to lesser cardiac disability, consequently to a longer and more useful life. Considerable progress has been made by the Institute's researches in the endocrinological aspects of the hypertensive condition, the study of synthetic blood pressure lowering agents, and the isolation from natural sources, both plant and animal, of pure principles which have the property of raising or lowering blood pressure. The serial study of a number of drugs which have the ability to lower blood pressure has determined certain of their inherent limitations. This has led to establishment of experimental hypotheses that permit the synthesis of other chemical agents which will have more suitable biological properties.

Investigations in the broad problem of the failing heart seek to clarify biochemical reactions in cardiac muscle whereby the energy required for contraction is provided from chemical nutrients which serve as fuel. The underlying biological mechanisms responsible for raising small carbon fragments from low to high energy values have been isolated for study. Certain of the mechanisms through which high energy carbon fragments are utilized in transfer of energy from one organic complex to the other have been clarified. Progress has been made in isolation and study of tissue catalysts involved.

Other studies have provided data which are applicable to better understanding of the circulatory system as a whole, the control of fluid and electrolyte composition of the body, and mechanisms implicated in the syndrome of heart failure. Certain kidney mechanisms concerned with retention or excretion of salt and others which determine acidification or alkalinization of body fluids have been isolated. These accomplishments are essential to development of a more rational basis for the use of diuretics. Experimental preparations have been produced which simulate the circulatory phenomena in cardiac failure. It is quite certain from these studies that the endocrines play a role which is as important as either the heart or the kidney in the precipitation and continuation of heart failure.

The cardiac patient is vulnerable to surgical procedures involving strong sedation and general anesthesia, particularly if the latter is required for more than a short period of time. Study of pentothal, the most commonly used "short-acting" intravenous anesthetic, has shown that the drug has the serious disadvantages of progressive localization in the fat of the body and a slow rate of inactivation. Administration of anesthesia for a long period results in accumulation of a large amount of pentothal in the body, which produces a postanesthetic depression of excessive duration. This has led to the study of a number of new compounds derived from or related to barbituric acid, and one that appears to have suitable characteristics is under clinical trial.

The most commonly used anticlotting drugs produce their effect through an indirect action on the clotting mechanism and are now known, as a result of Institute investigations, to be inherently difficult to control. On the other hand, heparin and heparin derivatives, which are more suitable for such a purpose, are biological in origin, short in supply, and inordinately expensive for continued therapy. Work has been undertaken in the expectation of devising a suitable synthetic substitute for heparin which can be produced at low cost.

Research on instrumentation has also been rewarding. Advances include the development of a mechanical pump which permits, in the experimental animal, the complete bypassing of blood from either of the two sides of the heart. The advantages which accrue to cardiac surgery from the availability of a bloodless interior chamber of the heart are under study. The device is not yet ready for application to the human. Preliminary work has been completed on a new optical tool to analyze the fluorescent light emitted by low concentrations of organic substances, including drugs. When perfected, it will constitute a powerful tool in the exploration of both new and old therapeutic agents.

GRANTS FOR HEART DISEASE RESEARCH

Important discoveries were made by a number of scientists whose research was supported by National Heart Institute grants. Studies were conducted on all aspects of heart disease, with many investigations dealing with the major problems of rheumatic fever, hardening of the arteries, and high blood pressure.

A valuable contribution to the treatment of coronary thrombosis was made with the discovery of a method to diminish and, in many cases, eliminate the crushing pain that accompanies a heart attack. This research found that an ethyl chloride spray, applied externally, will "freeze" the pain centers and stop the spasms which cause contraction

and impairment of the surrounding circulation. Once the immediate pain has been relieved, it apparently does not recur and thus allows the patient to conserve strength for the healing period.

Among the achievements accomplished through surgical research was development of a new technique for the repair of mitral insufficiency, the leaky valve condition that often occurs in rheumatic heart disease. In this method a piece of the pericardium, the sac enclosing the heart, is pulled through the heart and attached so that it will loosely move against the damaged mitral valve. The operation, performed under control of the surgeon's finger within the heart, has been immediately effective in a high percentage of cases treated.

Studies in hypertension have revealed that nearly all persons with high blood pressure have a chemical in their blood which is not present in individuals with normal pressure. This powerful substance, called pherentasin, is found in very minute amounts. When injected into rats, it quickly raises blood pressure. The discovery points the way to a possible new treatment for hypertension. The scientists are now studying drugs which may neutralize pherentasin and thus help to keep blood pressure normal.

RESEARCH ON BLOOD

Of increasing importance, in view of the international situation, the action in Korea, and the threat of atomic bombing, is the National Blood Program. Responsibility for research and development of blood and its derivatives was delegated to the National Heart Institute. More than a score of expert investigators were given grants to carry out urgent blood research.

Remarkable progress has been made. Resuspended red blood cells can now be stored up to 3 months. Globin derived from red cells which are discarded in present methods has been found to be effective and safe in treating shock when given with salt or glucose solution. This globin might substitute for plasma and reduce the amount of plasma needed. A new method for separating stable fractions of plasma from those fractions which are easily destroyed by standing or by changes in temperature was developed. Automatic devices were designed to make sure that plasma-sterilizing machines function properly. Advances were also made on processes for the partial recovery of outdated blood.

Dental Research

The National Institute of Dental Research has continued to devote its major efforts to the study of the causes and control of dental caries.

However, there has been increasing emphasis on basic investigations relating to other diseases associated with the teeth and their supporting tissues.

The collaborative study at Grand Rapids and Muskegon on the effect of fluoridation of water supplies for partial control of dental caries continued. The number of examinations made this year was increased to include children in three additional grades in addition to groups previously studied. The results of these observations indicate that dental caries experience has been reduced in Grand Rapids by approximately 65 percent in the younger school children (5 to 7 years of age) and by about 20 percent in the older children (13 to 14 years of age). The bacteriological and physiological aspects of the study were continued.

A study has been made of the relationship of fluoride to dental caries in the case of adults who have a lifetime history of drinking a natural fluoride-containing water. The results indicated a marked reduction of dental caries in persons up through age 44. This group had about 60-percent fewer decayed teeth and lost only about a fourth as many teeth as another group of adults with a continuous history of drinking a fluoride-free water.

Another investigation concerned the rate of calcification of the wrist bones of children reared in areas where the public water supplies contained natural fluoride in concentrations from about 3.9 to 4.4 parts per million. The results were compared with those obtained with a control group of children reared in an area where the public water supply was free of fluoride. No essential difference was found.

In their studies of rat caries, scientists at the Dental Institute have succeeded in formulating diets on which the animals develop caries of the buccal and labial tooth surfaces. As a result, it is now possible to study this type of caries (common in humans) experimentally in rats.

A method has been developed and successfully used for the preservation of viability and pathogenicity of the virulent Nichols strain of *Treponema pallidum* (causative agent of experimental syphilis in rabbits) when dried from the frozen state. This work was conducted by an American Dental Association Fellow on duty at the Institute.

Methods have been developed for the preliminary handling and embedding of dental tissues, from which suitable thin sections can then be cut for direct electron microscopic examination. This is an important advance in electron microscopy, because it is now possible to study the ultrafine structure of teeth in preparations similar to those long used in optical microscopy.

Extensive investigations have been made of the organic framework of mature and also of developing enamel and dentin. Scientists have

found a submicroscopic fibrillar network that permeates the substance of mature enamel. This network does not appear to be performed, but rather to develop during calcification.

DENTAL RESEARCH GRANTS

The dental research grant program, which is intended to stimulate the interest of dentists in research and to enlist the aid of dental investigators in the basic sciences, was continued. Thirty-six research projects were supported by dental research grants in the past year. The fellowship program supported the work of 16 dental researchers.

The National Mental Health Program

In 1948, less than half of the States in the United States had mental health programs to meet the needs of the emotionally or mentally maladjusted, and to maintain mental health.

In 1951, all States had such programs and were spending almost \$2 to every \$1 contributed by the Federal Government. This ratio was \$1 to \$1 in 1948. In 1951, Public Health Service grants to the States of \$3.5 million were almost doubled by State and local funds totaling \$7,296,000. These funds—almost \$11,000,000 plus \$1,000,000 of private funds—were spent for community clinic services, and for educational and consultant services. These control efforts, which, on the basis of present psychological and psychiatric knowledge, frequently succeed in preventing adjustment difficulties from becoming serious mental health problems, are being constantly expanded. A suggested State draft act which the Institute prepared in the fall of 1950 has become the basis for revisions made by a number of State legislatures in their laws governing mental health. In addition, at the request of State governors, the Mental Health Institute has provided consultative services to 23 psychiatric hospitals and institutions in Illinois, Colorado, and South Dakota. Their recommendations have been utilized for the improved hospital care of the mentally disturbed.

The National Institute of Mental Health also maintained close cooperative working relationship with the States on two growing national problems—alcoholism and drug addiction. Through special grants made by the Institute, the services of qualified organizations were used to secure further knowledge about the social and psychological conditions conducive to drug addiction among minors. In June 1951, a conference of several constituent units of the Federal Security Agency was sponsored by the National Institute of Mental Health to survey current knowledge of the problem and to plan a coordinated program of action.

In cooperation with State and local agencies, the problem of alcoholism was surveyed throughout the country as a preliminary step toward developing a program for its control. A special project grant was made to the Yale Center of Alcohol Studies to support a comprehensive survey of existing research on the problem of alcoholism and methods of education and treatment to combat it.

MENTAL HEALTH PERSONNEL

To develop the training of specialized personnel in all areas of mental health—now inadequate to meet the need—the Mental Health Institute has been able to provide 186 training grants to various non-Federal universities and institutions to promote the expansion or graduate teaching programs in psychiatry, clinical psychology, psychiatric social work, psychiatric nursing, public mental hygiene, and neurology.

Grants were awarded to 42 medical schools to provide undergraduate psychiatric education. Other grants were made to finance five institutes for public health officers, nurses, psychologists, and psychiatrists in public health mental hygiene, and a conference or undergraduate psychiatric education sponsored by the American Psychiatric Association.

RESEARCH ACTIVITIES

While the full development of the Public Health Service's program of research in mental health awaits the completion of the Clinical Center with its laboratory facilities, plans for its expansion are now being crystallized. The recent appointment of Dr. Seymour S. Kety as scientific director for both the Mental Health Institute and the National Institute of Neurological Diseases and Blindness emphasizes a research approach which will explore both the organic and functional bases of mental and neurological disorders.

Cooperative research projects were conducted with other institutions. At the Worcester Foundation for Experimental Biology, for example, scientists of the Foundation and scientists from the Mental Health Institute studied the output of adrenal cortical hormones in normal groups and in groups of schizophrenic patients in an attempt to assess the role of the adrenal cortex in mental disorders.

DRUG ADDICTION

Research on barbiturate and drug addiction at the Addiction Research Center of the Public Health Service Hospital at Lexington, Ky., continued to yield significant results. Study was continued on the development of synthetic analgesics as substitutes for mor-

phine. Battlefield experience in Korea confirmed the value of methadon as a valuable analgesic which could be given by mouth. The development of methadon frees the United States from dependence on imports of foreign opium—from which morphine is derived—a matter of considerable importance in event of total war. Experimentation at Lexington, Ky., also demonstrated that withdrawal effects following barbiturate addiction included epileptic-like convulsions and psychoses.

RESEARCH GRANTS PROGRAM

Under the Mental Health Research Grants program, several other important findings have been made in the past year. One of the studies in psychosomatic medicine has revealed a significant correlation between personality characteristics and the rates of pepsinogen secretion in patients suffering from duodenal and peptic ulcer and from pernicious anemia. Another project has revealed important facts relative to behavioral contagion among groups of emotionally disturbed children, and the data are being used to develop new techniques of childhood social adjustment.

Neurological Diseases and Blindness

The National Institute of Neurological Diseases and Blindness, established in the summer of 1950, has already initiated its program of medical research grants and a program of fellowships and traineeships to support the training of qualified personnel for fundamental research and investigation of more effective methods for treatment and rehabilitation in the crippling neurological diseases.

GRANTS FOR TEACHING AND RESEARCH

Because no funds were available for the operation of the new institute during fiscal year 1951, grants in neurological diseases and blindness were made and administered through the National Institute of Mental Health and its Advisory Council. Fifty research grants were made in the amount of \$490,000 for studies in neurophysiology, neuropathology, neuro-anatomy, and specific problems concerning diseases of the eye. In addition, the Research Grants Division, through the National Advisory Health Council, which recommends grants for general medical research, supported projects in these areas in the amount of \$350,000.

To support the teaching of neurology—a field which is short of both clinicians and investigators—the National Institute of Mental

Health made \$77,881 available for teaching grants. Many of these research and teaching projects will be assumed by the new Institute in 1952. They represent a well-rounded attack on many specific problems such as cerebral palsy, epilepsy, multiple sclerosis, glaucoma, and cataracts, as well as many basic problems about the brain, spinal cord, and neuromuscular systems which are fundamental to an understanding of the causes of these as yet incurable disorders.

The National Institute of Neurological Diseases and Blindness in fiscal year 1952 will have \$1,015,000 available for grants in medical research and \$51,400 to award for fellowships. These funds will aid promising students at various universities and institutions who are seeking their masters' degrees or doctorates in neurology and ophthalmology, or who are doing postdoctorate work in these fields. Another \$36,000 will be available for support of traineeships for qualified physicians, professional personnel, and others seeking specialized training in neurological rehabilitation.

The Nation's Health Resources

The Public Health Service not only contributes to the expansion of the Nation's health resources, both human and material, but renders important advisory and technical assistance in putting those resources to effective use. The perennial need for utilizing health facilities and manpower as efficiently as possible is intensified by the present emergency defense program, since health services must be provided simultaneously for the armed forces and the civilian population.

The defense program affects civilian health services in a variety of ways. The opening of a military training camp, for example, or the expansion of defense industry may produce a critical problem for civilian health facilities and agencies. New installations of the Atomic Energy Commission in South Carolina and Kentucky will result in the construction and population of whole communities, each requiring the full range of health services and facilities. Among them are water supplies, sewerage, hospitals, insect and rodent control, milk and food sanitation, communicable disease control, occupational health, and maternal and child health services. Again, as the Armed Forces expand their training centers, the civilian population in the surrounding areas will increase by at least half the total military strength. Since the armed services are responsible only for health and sanitation within the camp, they depend upon the Public Health Service and State and local agencies to protect both military personnel and civilians in these communities.

Civilian Health Requirements

Under the authority delegated to him in Defense Production Administration Order No. 1, the Federal Security Administrator placed in the Public Health Service the operation of the Agency's function as claimant before the National Production Authority for all health supplies and equipment, and for construction material for all hospitals, excluding military and veterans' facilities. To carry out these functions, the Surgeon General established a Division of Civilian Health Requirements in the Office of the Surgeon General, effective April 2, 1951. In addition to presenting and justifying claims for civilian health needs before the Defense Production Administration, the National Production Authority, and other defense mobilization agencies involved in determining the allocation of materials and facilities, the Division develops and operates programs for the equitable distribution of such materials as are allocated.

The task immediately confronting the Service during the year was to estimate both short-term and long-range needs for supplies, equipment, and construction to maintain civilian health. Early in 1951, predicted shortages of material began to occur. Pending the institution of a comprehensive materials-control program, the Defense Production Administration set aside specified amounts of steel for the construction of civilian hospitals and health facilities, and delegated to the Public Health Service the responsibility and authority for its allotment and for the issuing of construction permits.

By the end of the fiscal year, the Division of Civilian Health Requirements had recruited within the Service a staff of about 40 persons—including experts in engineering, statistics, medical supplies, public health administration, and hospital planning and construction—and had developed an organization and procedures for carrying out the functions delegated to it. By the close of the year, therefore, the Service was ready to administer its share of the comprehensive Controlled Materials Plan instituted by the Defense Production Administration shortly after July 1, 1951.

Hospital Planning and Construction

Under the provisions of the Hospital Survey and Construction Act, now 5 years old, the 53 States and Territories brought up to date their surveys of hospital needs. They reported that there are slightly more than 1,000,000 acceptable hospital beds available in the Nation. During the year, there was a net increase of almost 142,000 acceptable hospital beds, half of them located in facilities which received Federal assistance through the Hill-Burton program. However, 870,000 addi-

tional beds are needed to provide adequate hospital care for the American people.

A reduction in available funds, together with the steady increase in construction costs, retarded building during the year. Yet notable progress was made, and the effect of the planning and construction started earlier became more apparent. As of June 30, 1950, the Division had approved 1,369 projects representing \$344,000,000 in Federal funds, of which only 180 projects were completed and in operation. By June 30, 1951, a year later, 1,580 projects had been approved, representing \$424,000,000 in Federal funds, of which 471 were completed and in operation. There were 981 projects under construction, and 128 in the preconstruction stages.

With the majority of Federal funds having gone into the construction of general hospitals heretofore, it is noteworthy that progress was made during 1951 in stimulating greater interest and planning on the part of the States for chronic disease, mental, and tuberculosis facilities. State planning also reflected increased emphasis on providing medical teaching centers, and on the construction of combination hospitals and public health centers. With State planning increasingly stressing a service concept, impetus was given to one of the program's primary objects of insuring better patient care through the coordination of hospital facilities and services.

In view of the fact that Hill-Burton construction represents 33 percent of the dollar value of all hospital construction in the Nation, the Division of Hospital Facilities lent significant assistance during the year to the development of a controlled-materials program. Preliminary study was made of the problems involved in providing adequate facilities for communities in defense areas.

Medical and Hospital Resources

While construction of new hospitals and health centers goes forward, the Public Health Service continues its efforts to assist in dealing with the operating problems of present facilities. The Division of Medical and Hospital Resources develops guide materials for communities and States. It also provides consultation to the technical staff of the Division of Hospital Facilities.

As more Hill-Burton projects have been completed, guide materials have been made available on a larger scale. About 85,000 copies of pamphlets, reprints, and mimeographed items were distributed during fiscal 1951. The 80 titles ranged from "Selecting the Hospital Site" to "Better Patient Care Through Coordination," and included aids on preconstruction planning, staffing, financing, and operation.

At the request of State agencies, the Division provided continued assistance in conducting institutes on hospital operation. These institutes were often used by State groups as patterns for similar local meetings.

The Division of Medical and Hospital Resources also served many groups other than those directly concerned with local hospital projects. Queries came in continuously from foreign countries, Members of Congress, foundations, voluntary agencies in the health field, and various Government departments.

The Problem of Manpower

The most important of all health resources is the Nation's reservoir of trained personnel. There is still a serious shortage of trained professional workers in public health. A count made during the last fiscal year indicated that 326 local health departments were without the services of a full-time health officer. The Nation needs more physicians, dentists, sanitary engineers, nurses, and research scientists, as well as trained technicians to assist them.

STUDIES OF HEALTH MANPOWER

Through its Division of Public Health Methods, the Public Health Service conducts and collaborates in studies that reveal the Nation's health needs and resources. During 1951, the chief problems of this Division were related to the maintenance of adequate health manpower and facilities to protect civilian health and at the same time meet the needs of the armed forces for health personnel. The Office of Defense Mobilization (particularly its Health Resources Committee) has drawn heavily upon the experience and personnel of the Public Health Service in defining and analyzing these problems and in planning ways of dealing with them. Additional work of this type was performed by this and other divisions of the Public Health Service on the staffing of State and local health departments, hospitals, and—in cooperation with the professional associations in medicine, dentistry, nursing, and public health—on the financial and related aspects of education in their respective fields.

The pilot study, begun in 1950, of health manpower requirements in an industrial area, requested and financed by the National Security Resources Board, is continuing. It is being conducted by the University of Pittsburgh Graduate School of Public Health and the Division of Public Health Methods, with the Pennsylvania Medical Society, the Allegheny County Medical Society, and the Hospital Council of Western Pennsylvania actively participating. The first phase of the study delineated the medical service areas in western

Pennsylvania. Further information is being sought on the types of service for which patients go from one locality to another, and of the geographic, economic, and related factors which lead to the development of medical service areas. A companion study of patient loads of dentists in the Pittsburgh area has been made by the Odontological Society of Western Pennsylvania, with the assistance of the Division of Public Health Methods.

HEALTH MANPOWER COMMITTEE

On February 12, 1951, the Surgeon General established a public Health Service Committee on Health Manpower, under the chairmanship of the chief of the Division of Public Health Methods. The purposes of the committee are: (1) to serve as a center for information on health manpower available in the Public Health Service and elsewhere; (2) to make that information available to operating programs of the Service; (3) to coordinate Service activities related to studies of manpower; (4) to make or stimulate any special studies deemed desirable; and (5) to make recommendations to the Surgeon General with respect to policies and legislation concerned with health manpower.

The Committee and its staff have given attention to many legislative and administrative developments affecting the Public Health Service and civilian health agencies. Information on manpower studies conducted by various divisions of the Service has been pooled. Available data on resources, requirements, age, sex, income, distribution, and rates of graduation have been summarized for various categories of health personnel, and a comprehensive source book on health manpower statistics is being compiled.

TRAINING HEALTH PERSONNEL

The Public Health Service acts in a number of ways to help meet the shortage of trained health personnel. Its hospitals carry out comprehensive teaching projects, ranging from residencies for physicians to on-the-job instruction for maintenance personnel. Fourteen of the 23 Service hospitals are training doctors under programs approved by the Council on Medical Education and Hospitals of the American Medical Association. Nine are teaching dental interns under programs approved by the American Dental Association. At the end of the fiscal year, 114 medical and 32 dental interns were on duty.

At the Lexington, Ky., and Fort Worth, Tex., hospitals, 118 psychiatric aides received training. The course consisted of formal lectures and demonstrations, followed by supervised experience in the wards.

During the year, the Public Health Service Hospital in Baltimore, Md., graduated five medical record librarians from its approved school

for specialists in this field. This course, the first of its kind in the Federal services, is given in collaboration with the Baltimore Junior College and Johns Hopkins University Hospital.

More than 700 trainees, representing all sections of the Nation and several foreign countries, attended regularly scheduled field training courses conducted at the Communicable Disease Center in Atlanta, Ga., and at regional training centers. An additional 872 public health workers attended specialized training courses conducted by Center personnel in various cities, upon requests from State and local health departments. Forty-one States, the Territories, and a number of foreign countries enrolled laboratory technicians and other personnel in refresher courses offered in Center laboratories.

State health departments have been doing their part to meet the personnel problem by providing training opportunities for public health workers. Approximately 7,000 persons received sponsored training in some field of public health during the past year.

MEDICAL SCHOOL GRANTS AND FINANCES

The report of the Surgeon General's Committee on Medical School Grants and Finances was completed and presented at the joint meeting of the Public Health Service's Advisory Councils in February 1951.

The report has been published in three volumes under the general title, "Medical School Grants and Finances." Part I. "Conclusions and Recommendations," describes the Public Health Service programs that provide funds for research and training in medical schools, affiliated hospitals, universities, and other institutions, and presents the Committee's evaluation of the findings and its recommendations on research grant policies. Part II. "Financial Status and Needs of Medical Schools," gives a detailed analysis of the expenses, income, and endowments of medical schools, and includes the estimates of medical school deans as to the funds needed by their schools for effective operation with current enrollment and with increased enrollment. Part III. "Public Health Service Grants—Their Distribution and Impact on Medical Schools," is an account of the development of the research grants programs and a detailed analysis of the distribution of each type of grant among schools.

Surveys of dental schools and graduate schools of public health paralleling that of medical schools are under way. A companion study of the aims, staffing, facilities, and students of schools of public health has been initiated in cooperation with the Association of Schools of Public Health. The staff of the Division of Public Health Methods detailed to a committee of the National Committee for the Improvement of Nursing Services prepared to report on the charac-

teristics of nursing schools, as measured by standards determined by the National League of Nursing Education.

Dental Resources

The apparently rising prevalence of dental disease and the continuing shift of dentists from civilian practice to the military service have sharply accentuated the need to make better use of existing dental resources and to develop time-saving methods.

During the year the Dental Resources Division completed the field work in connection with a study of the financial status, staffing pattern, and needs of dental schools and dental hygiene schools. The project has been carried out in cooperation with the American Association of Dental Schools and the Council on Dental Education of the American Dental Association, and with the assistance of the Division of Public Health Methods.

Projects to ascertain the value and efficiency of multiple operating chairs and chairside assistants as mechanisms for increasing a dentist's productivity have continued during the year. Preliminary findings have been very encouraging. A report will be made during the coming fiscal year citing the exact findings of the pilot program at the United States Merchant Marine Academy, Kings Point, N. Y.

Studies concerning a methodology for determining efficiency of specific dental operations resulted in the design and development of a mechanical recorder which will measure the time and effort expended by an operator when performing various dental procedures. Full utilization of this technique is expected to indicate a number of possibilities for extending the services of individual dentists in civilian life, in Government installations, and in the uniformed services.

The Division has developed a "mark sense" statistical card for measuring dental services provided and services needed. The system was put to use in dental clinics throughout the Public Health Service. Data now being analyzed by this new recording method indicate that it is simpler, less expensive, and more complete than previous methods.

During the fiscal year, studies to improve the classification and diagnosis of dentofacial deformities were undertaken and a simple anthropometric instrument was designed for this purpose.

Nursing Resources

The Nation's nurse shortage climbed to 65,000 during the year, but the Division of Nursing Resources, in consultation with national

professional organizations, found that steady, although slow, progress was being made toward conservation of nursepower and better utilization of the existing nurse supply. The Division's program of surveying nursing resources and studying nurse functions by request of States and individual hospitals has been an important factor in this progress.

SURVEY ACCOMPLISHMENTS

Since 1946, 27 States have requested the assistance of the Division's staff in conducting surveys. Iowa, Nebraska, Oklahoma, West Virginia, and Hawaii were surveyed in the past year.

Stepped-up student recruitment is only one answer to the question of increasing the nurse population. Surveys of nursing resources have revealed that the nursing education system needs tightening to reduce the high percentage of student withdrawals before graduation, and to offer greater opportunities for graduate work qualifying instructors for schools of nursing and candidates for administrative and other leadership posts. They have also shown that ways must be found to attract inactive nurses back into the profession and to prepare larger numbers of practical nurses to assume the nonprofessional aspects of care in hospitals and homes.

During the past year, Arizona launched a course in public health nursing in which 80 public health nurses are currently enrolled—the first college-accredited program for graduate nurses offered by this State. In Florida, a university school of nursing has been established at the State university, a long-needed stimulus to recruitment, and a new practical nurse school has been authorized. In Massachusetts, following recommendations by the Division, three small schools of nursing combined to save faculty and consolidate teaching facilities. The first year's admissions were twice as high as the number of students the three schools together were able to recruit before consolidation.

Mississippi doubled its student enrollment, cut the number of its schools in half, and improved its recruitment program by improving the schools themselves through advanced preparation of faculty and coordination of teaching programs. Over 300 nurses have taken extension courses to prepare themselves better for their present jobs. The State has been able to open 21 new hospitals without delays due to lack of nursing staffs and, for the first time, practical-nurse programs have been developed which are now producing trained women to assist in patient care on the nonprofessional level.

South Carolina, surveyed in 1950, formerly offered clinical experience in psychiatric, tuberculosis, and communicable disease nursing to student nurses in only a fraction of its schools. Since the survey,

60 percent of schools offer instruction in psychiatric nursing, 100 percent offer communicable disease nursing, and 46 percent provide instruction in tuberculosis care. For the first time, graduate work is being offered in ward management and public health nursing through the State University Extension Division, and six undergraduate schools are providing experience in public health nursing.

In West Virginia, 61 percent of inactive nurses said they would be available for full- or part-time duty. In Oklahoma, action is under way to survey personnel policies and practices.

All States which have been surveyed have active citizens' committees which are working with the professional nursing groups in carrying forward survey recommendations.

ECONOMIC USE OF NURSEPOWER

The need to use nurse time efficiently and to establish appropriate relationships between professional and nonprofessional nursing functions prompted hospitals to ask the Division of Nursing Resources to devise a method of studying nursing service activities on various levels.

From a study requested by a New England hospital and university in 1950, a method of studying head nurse time in hospitals has been developed and described in a manual, "Head Nurse Power and How To Use It," which will undergo extensive field trials. The study showed that at least one-third of the head nurse's time was devoted to activities which could have been performed by clerical or other personnel—a costly waste of management skills and professional knowledge.

Engineering Resources

The growing importance of environmental health factors makes the sanitary engineering resources of the Nation a significant element in the public health picture. The Public Health Service's Division of Engineering Resources has as its main purpose the evaluation of activities and the delineation of needs in the environmental health field. The Division completed three statistical studies during the year: (1) A study to determine the number of graduates from schools of sanitary engineering; (2) a survey to gain more precise knowledge about persons who completed undergraduate training in sanitary engineering but who eventually left the profession; and (3) an analysis of present and anticipated job vacancies among environmental health personnel.

During the year, the Division completed—in cooperation with other divisions of the Service—a resource book entitled "Environment and Health," which discusses problems and needs in this field, and shows

how Federal, State, and local health agencies work toward building a more healthful environment.

Members of the Division participated in civil defense activities by assisting other divisions and other Federal agencies on special defense-related projects; by establishing a liaison office at Camp Detrick, Md.; and by serving on task forces and Public Health Service committees concerned with the problems of manpower, postdisaster relief, and civil defense.

HYGIENE OF HOUSING

Interest in the health aspects of housing grew throughout the year. Seven State health departments and more than 20 local health units now have active programs to enforce minimum health standards for the maintenance, use, and occupancy of substandard housing. A study to evaluate the effects that health department activities have on the improvement of housing conditions was begun during the year by the Public Health Service in cooperation with a State and a local health department. A similar cooperative research project, with a local voluntary organization participating, seeks to determine how local health agencies can help to enforce housing laws.

RADIOLOGICAL HEALTH

In former years, radiation did not pose a serious threat to public health. Today, however, sources of ionizing radiation are more widely used. Each atomic reactor produces the radioactive equivalent of tons of radium. Radioactive substances are used in increasing numbers of hospitals, industries, and research establishments. X-ray machines may be found in a variety of settings, from shoe stores and foundries to physicians' offices. Potentially, ionizing radiation may affect the environment and thus the health of many communities.

The Division of Engineering Resources took steps to meet this hazard by developing systematic training programs. In cooperation with the Environmental Health Center, the Division conducted 10 training courses of from 1 to 3 weeks in length in radiological health and radiation instrumentation. It also assisted in 16 training courses given by Federal, State, and local civil defense authorities. At the request of the Federal Civil Defense Administration, five 1-week seminars in the nursing aspects of atomic warfare were conducted by a team of Public Health Service radiation experts in five different cities.

In addition to these training activities, the Division offered consultative services to State and local health authorities on radiation problems. In cooperation with the Divisions of Sanitation, Industrial Hygiene, and Hospital Facilities, it also started a survey of X-ray

departments in Public Health Service hospitals to measure radiological health hazards.

The Nation's Health Services

In meeting the Nation's growing demands for health services, the Public Health Service has a multiple responsibility. Its trained personnel and its health facilities bring direct medical and hospital care to numerous categories of citizens designated by Congress. Its Division of Foreign Quarantine guards the Nation against the entry of epidemic disease. Even more far reaching is its contribution to State and local health activities through a broad variety of catalytic functions. Although the front line in the battle to improve the health of the American people runs through thousands of local communities, the Public Health Service provides a center of information and cooperation to make that fight more effective.

The Bureau of State Services is the focal point of a sweeping Federal-State cooperative health program. Through this Bureau, the Service develops and investigates new techniques, evaluates methods and procedures, and conducts demonstrations in public health practice, making its findings available to local health agencies. It conducts training programs for health personnel. It offers reference, laboratory, diagnostic, and consultative services. It helps prevent the spread of disease through the application of interstate quarantine regulations, and furnishes special aid in the event of epidemics and disasters. It develops Nation-wide standards and guides in various professional and technical fields, such as public health nursing, health education, and sanitary engineering. And, finally, it administers the system of financial grants-in-aid which enable health agencies to strengthen their general health structure and to focus special attention on the diseases and conditions which constitute problems of grave national concern.

Most of these technical and consultative services reach State and local health departments through the 10 regional medical directors of the Public Health Service and their staffs. The regional directors are also responsible for interstate quarantine work and for the inspection of Public Health Service hospitals and quarantine stations. At semi-annual meetings in Washington, D. C., the regional medical directors discuss mutual problems and work out common patterns of public health practice.

The past year saw a strengthening of that partnership of Federal, State, and local agencies which is the key to the Nation's steady gains in health.

Grants to the States

Federal appropriations to the Public Health Service for grants to States, excluding grants for hospital construction, totaled slightly more than \$40,000,000 in 1951. This represented a reduction of approximately 12 percent from the 1950 figure. State and local funds available for the operation of health departments, exclusive of sums for hospital care, reached an estimated \$200,000,000 in 1951, an increase of 9.3 percent over the figure for the previous year. While this increase in State and local appropriations produced a net gain in the total amount of money available for public health, the increased cost of health services prevented the expansion of many programs to meet emergency needs.

Grant-in-aid payments made by the Public Health Service to the States in 1951 were as follows:

General health.....	\$13,540,085
Venereal disease (including rapid treatment and special projects) ..	9,882,902
Tuberculosis	6,350,000
Mental health.....	3,074,429
Cancer control.....	3,026,908
Heart disease.....	1,359,385
Industrial waste studies.....	866,853
Hospital survey and planning.....	107,883
Alaska grant.....	694,000

In addition, \$142,743,507 of Federal funds was obligated for the construction of hospitals under the Hill-Burton Act. Payments totaling \$108,096,418 were made during 1951 for hospital construction. Table 3 presents payments to each State.

STATE PROGRAMS

State health agencies continued their development of programs for the prevention and control of the chronic diseases. Cancer-control programs received increased attention generally and were expanded in many areas. Programs for the control of heart disease, many of which were initiated in 1950, developed improved techniques and more clearly defined objectives. Some State health departments explored such other chronic disease problems as diabetes, arthritis, and rheumatism.

Many areas of the country still lack full-time local health services. As of June 1951, about 1,300 organized health units provided full-time local health services to some 1,500 of the 3,070 counties in the United States. In addition, there were 60 State health districts which furnished advisory and supervisory services to more than 550 counties.

One of the important tasks of the Public Health Service is to help State and local agencies improve the caliber of health administration.

The Division of State Grants provides consultative services to this end, and conducts a variety of studies in the organization and management of health programs. During the year, the Division completed the field work and analysis of data for the extensive decennial study of the distribution and organization of health services in the structure of State governments. For the fourth consecutive year, the Division collected and published information on salaries paid State and local health workers. These publications are of value to public health administrators in determining salary levels and planning recruitment program.

Vital Statistics in the Service of Health

The National Office of Vital Statistics compiles, analyzes, and distributes a numerical account of the Nation's births, deaths, stillbirths, marriages, divorces, and diseases. Through cooperative planning, consultation, and special projects, the National Office also assists the State agencies which have the primary responsibility for collecting vital statistics within their own areas.

During the past year this cooperative activity was continued and expanded. For example, a filmstrip was developed to show the proper method for medical certification of causes of death. Health departments throughout the Nation are using the filmstrip in educational work with medical practitioners. Meanwhile, training of State and local cause-of-death coders in the use of new classification procedures was continued.

A records program to ascertain causes of fatal accidents in the home was presented to State health departments. Twelve States are utilizing the Public Health Service report form to collect information as to the circumstances and contributory causes of domestic accidents, which are outranked only by motor vehicle accidents in occasioning violent death. With the data gained from these reports, local, State, and national health groups can plan specific accident prevention programs.

Major phases of a Nation-wide test of birth registration were carried out during the year to obtain measures of completeness of birth registration. Records filed for infants born during the first 3 months of 1950 were matched against infant cards filled out by Census Bureau enumerators for children born during the period and alive on April 1, 1950. The results show that registration completeness has improved markedly throughout the country since 1940, when the last such test was conducted.

Work continued on a long-range program to improve communicable diseases statistical reporting. Reports of epidemic outbreaks are of special significance when they are caused by un-

usual disease, investigated through new techniques, or concern national defense, especially against biological warfare. In January 1951, information concerning epidemic outbreaks of communicable diseases pertinent to civilian defense was included in current publications.

COOPERATIVE PROGRAMS

In April 1951, the Communicable Disease Center, in cooperation with the National Office of Vital Statistics, sponsored a conference in Atlanta, Ga., to discuss changes in morbidity reporting procedures. Consultants from Federal, State, and other agencies participated in the discussions. A decision was reached as to a revised list of diseases which the States will report to the Public Health Service in weekly and annual summaries, beginning January 1, 1952.

Cooperative studies conducted by the National Office of Vital Statistics, the Office of Indian Affairs, and the States of Arizona and New Mexico have revealed vast underregistration of Indian births and deaths on the Navajo reservation. As a result of these studies, the Navajo local registration system has been reorganized and selected traders and interpreters have been appointed as local registrars for vital statistics on the Reservation.

INTERNATIONAL ACTIVITIES

In the international field, the program for the development and improvement of vital statistics was continued under the Act for International Development (point IV), Public Law 535. Technical advisory services to other governments, training of foreign nationals, exchange of technical information, and services to foreign visitors comprise some of the program activities.

One of the highlights of the year was the Inter-American Seminar on Biostatistics, held in Santiago, Chile, September 16 to December 23, 1950. Instructors, training grants, and technical materials were supplied by the Division. Consultants from the National Office of Vital Statistics had the responsibility for carrying out a health survey and test of completeness of registration in the Quinta Normal Health Center. The participants at the seminar were given an opportunity to engage in all phases of the survey and birth registration completeness test and thus obtain practical experience in the techniques of gathering and interpreting vital statistics data.

Public Health Nursing

The number of nurses employed by public health agencies rose in 1951 to 25,461, compared with 15,997 20 years earlier. Even more encouraging is the increase in the number of nurses with a full year of

university preparation. More than 35 percent of nurses in public health now have this special qualification, compared with 7 percent in 1931. Despite these gains, nearly twice the existing number of nurses must be employed if present public health nursing needs are to be met.

Through its Division of Public Health Nursing, the Public Health Service supplies leadership in the development and improvement of public health nursing services on local, State, national, and international levels. During the year, the staff of the Public Health Nursing Division participated actively in the program of such organizations as the American Public Health Association, the American Nurses' Association, the National Organization for Public Health Nursing, the National Health Council, the International Council of Nurses, and the Expert Committee on Health Education for the World Health Organization. The biennial work conference of State nursing directors was held in March 1951, to plan nursing needs in the defense program. It was attended by the regional and special nursing consultants of the Public Health Service and the Children's Bureau.

There were 144 public health nurses on duty in the Public Health Service on June 30, 1951, as compared with 142 a year earlier. While most of these were assigned to operating programs, a number gave their attention to in-service education and staff development. Fourteen nurses were assigned to States for experience in supervisory work, 3 were detailed as acting directors of State nursing services for administrative experience, and 2 were sent to universities for advanced study.

Environmental Health Services

New problems in environmental sanitation were raised during the year and familiar problems intensified by the defense program and the accompanying shifts of large population groups. For example, the Public Health Service's Division of Sanitation added to its activities consultative services relating to biological warfare and atomic energy. The Division assisted in training courses for military personnel in food handling and sanitation. Technical assistance was given to the Federal Civil Defense Administration in formulating its plans and programs with respect to certain aspects of food supply.

MILK AND FOOD SANITATION

Over 325 investigations of milk and food service equipment were conducted during the year, each in response to a specific request. Fifty-four community-wide milk sanitation surveys were completed. Fifty-eight training schools were conducted for milk- and food-handling personnel, and 38 seminars were held for State and local agencies and private industry. Inspections were made of food supplies and

food service facilities in Federal parks, prisons, and hospitals. Interagency and government-industry conferences for the development of standards in dairy and food-service equipment were continued.

The Division of Sanitation conducted four field study projects covering: (1) time and temperature conditions required to kill or devitalize *Coxiella burnetii*, the causative agent of Q fever; (2) control problems in the manufacture of concentrated fluid milks; (3) investigation of milk evaporating and drying equipment and milk powder plant operations; and (4) determination of proper control measures and adequate methods of cleaning milk plant pipelines.

Shellfish Sanitation

Supervision, control, and evaluation of the shellfish industry continued. An important research project was initiated at the Shellfish Sanitation Laboratory at Woods Hole, Mass., to provide data concerning the bacteriology of shellfish after their removal from growing waters and during marketing. As required by interstate quarantine regulations, lists of certified shellfish shippers were compiled and sent to health and food control officials. Negotiations were begun with a number of foreign countries over the problems of shellfish importation.

EXAMINATION OF INTERSTATE CARRIERS

In protecting the health of passengers and employees on trains, planes, busses, and vessels, the Division of Sanitation has encouraged the voluntary adoption of recommended practices, using punitive measures only as a last resort. These methods have met with enthusiastic response from the country's transportation systems, resulting in a higher standard of sanitation than might otherwise have been achieved. Interstate carrier examiners were able to report excellent progress in preventing the transmission of food- and water-borne diseases across State borders. They were also able to assure good health conditions on conveyances operating in interstate traffic and aboard American vessels engaged in foreign trade.

Protective measures involved inspections of 2,900 railroad dining cars, 2,200 American ships, 3,000 watering points in the United States, and 1,200 public water supplies. Lists of watering points and of the sources of milk and frozen desserts for consumption on carriers were compiled and classified periodically. Plans for construction of ships, airplanes, trains, and new watering point facilities were also reviewed.

TECHNICAL SERVICES

The Public Health Service furnished technical advice on public water supply sanitation during the year to States, municipalities, and

regions, and to other Federal agencies. Investigations were made into the applicability of the new membrane filter; a film was produced on sanitary drilled wells; and uniform standards were developed for waterworks. A staff member of the Division of Sanitation served on the President's Water Resources Policy Commission.

New Knowledge in Environmental Health

The Environmental Health Center, with its base laboratories in Cincinnati, Ohio, continued its programs to find answers to these as well as to other perplexing environmental health problems. Through research in its own laboratories, through field surveys, and through consultation and training, the center works with other parts of the Public Health Service and with State health agencies in helping build a healthful environment. During the year, foundations were laid for a new laboratory building in Cincinnati, where physicians, engineers, physicists, chemists, biologists, and other scientists will pool their skills in the interest of a coordinated approach toward research in environmental health.

LABORATORY RESEARCH

During the year, the center completed preliminary studies on a new and significant method of detecting bacteria in water through the use of a membrane filter. This technique is not only more sensitive than the standard water bacteriology procedures in use during the past 35 years, but is also superior in terms of cost, time, labor, and equipment. Work is now being done to develop and perfect the practical applications of the filter.

Other important studies are under way on the occurrence of viruses in water and on methods of eliminating them. Investigations are also being conducted to solve the knotty problem of tracing the sources of unpleasant tastes and odors in public water supplies. As a result of these studies, new microchemical techniques have been developed which enable investigators to detect tiny amounts of noxious substances, as little as a few parts per billion, in water supplies. Complex organic mixtures are being successfully broken down into specific compounds and identified through the use of infrared spectrophotometry. These studies have provided new leads to the detection of waste discharges and have uncovered important clues to problems which have baffled the operators of waterworks for many years.

As a result of intensive studies in the bio-assay of the toxicity of industrial wastes to fish life, standardized procedures have been established which will permit an industry to determine, in advance, the effects of its wastes on the aquatic life in any specific body of

water. Other biological studies were made to determine the types and quantities of aquatic life which are found in clean and polluted waters. These findings will permit water pollution control officials to determine rapidly and with limited equipment the history and present state of pollution in a specific stream.

Bacteriologists in milk and food sanitation work developed a new stain for the microscopic examination of milk whereby more bacteria can be recovered than is possible with the stains currently in use. Slight modifications of this stain have also been found successful in detecting the causative organism of syphilis.

FIELD INVESTIGATIONS

Several field studies have been launched to determine the current quality of water, and the effects of radioactive and other wastes on the normal uses of water in areas where atomic plants are located. Undertaken in cooperation with the Atomic Energy Commission, studies are now under way on the Columbia River in Washington and the Savannah River in South Carolina.

Engineering and laboratory studies were completed during the year to determine what effects the construction and operation of the Ala-toona Reservoir had on the quality of the water in the Etowah River. A picture of the water quality and of the extent of pollution was obtained both before and after the construction of the reservoir. This "before" and "after" picture can serve as a practical method of estimating the effects of impoundments in other areas on water quality. At the request of and in cooperation with the State health departments of Missouri and Illinois and the Bi-State Planning and Development Agency, the Center's specialists are participating in an investigation of pollution in the St. Louis area of the Mississippi River. The survey was undertaken following complaints by fishermen about the unpalatable fish caught in this area. A comprehensive report was published on the investigation of water pollution in the South Platte River, including recommendation for abatement.

Industrial waste studies were intensified at the Center. An industrial waste guide on the beet sugar industry was published, including characteristics of the wastes and methods of treating them. Field investigations are going forward in other industries, and similar guides will be published when the studies are completed.

TRAINING

The Center devoted considerable attention to training in radiological health for State and local health workers. A staff of specialists in the medical, chemical, physical, and engineering aspects of radiation conducted six courses over a total of 12 weeks in basic radiological health training and instrumentation. These courses were attended by 133

public health workers from 38 States, the District of Columbia, Panama, the Canal Zone, and Canada. In addition, special field training courses were conducted for public health nurses, engineers, physicians, waterworks operators, food and drug inspectors, and other health personnel in 17 cities; some 3,400 people attended these courses.

The Center also offered special advanced training in water pollution control, sanitary bacteriology, sanitary chemistry, and emergency measures to combat biological, chemical, and radiological contamination of water, food, and air. Six formal courses of 1 to 3 weeks' duration were given for 94 professional public health workers from 34 States, the District of Columbia, Puerto Rico, and Canada. The Center also assisted State health departments conduct short field training courses in 6 cities for 710 State and local public health personnel. Special short courses were held for 27 foreign sanitary engineers and chemists who were studying water and sewerage practice in this country.

Water Pollution Control

Pollution of the Nation's streams is a threat to the health and economic strength of the country, serious at any time, but particularly critical during a period of national emergency.

The basic facts on water pollution for the country as a whole, to the extent that those facts are available, have been assembled, and will serve as the foundation for the comprehensive abatement programs whose development the Congress directed. A summary of these facts,³ jointly compiled by the Federal Government and the States, reveals a total of more than 22,000 individual sources of pollution in the United States today, divided about equally between municipal sewer systems (11,800) and industrial waste outlets (10,400). From the facts now known, it appears that there is a present need for approximately 10,000 new waste treatment plants, or additions to present inadequate plants—6,600 for municipalities and 3,500 for industries. This does not represent the actual total need, however, since information is not available as to the adequacy of present treatment for 1,600 municipal sources of pollution and for 5,500 industrial sources.

To make the assembled data immediately available to the Nation the information is being presented in 15 summary-type reports covering the United States by major drainage basins. Six of the fifteen basin reports are already in print, and it is anticipated that the remainder will be completed by the end of 1951. These summary reports present information about the ways our water resources are being used, the pollution going into them and the resulting damages,

³ Public Health Service Publication No. 64, *Water Pollution in the United States*.

the benefits which may result from pollution prevention and abatement, pollution prevention measures now in effect, and those required. Data are given for each of the several subbasins of the major basin, and a tabulation of water-pollution control projects now known to be needed is included.

The Public Health Service, representing the Federal Security Agency, is now officially a member of the Federal Inter-Agency River Basin Committee, which was established by inter-agency agreement in 1943, to provide a mechanism for continuing the coordination of resource development programs which had previously been accomplished through the National Resources Planning Board.

STATE LEGISLATION

Activity in the field of State water-pollution-control legislation has been increasingly evident since the enactment of the Federal law. Nearly all States have some form of water pollution control law. The provisions of those laws vary widely and difficulty has been experienced in coordinating their operation when interstate waters are involved. To meet this difficulty, and in compliance with the instruction in the Federal act, an effort was made to bring together in one document the best provisions of existing State laws, together with such added provisions as were deemed desirable to permit operation of an effective water pollution control program for the Nation. From this draft, a suggested State law was developed, which the Council of State Governments has endorsed and adopted as part of its 1951 legislative program.

INDUSTRIAL WASTES

The National Technical Task Committee on Industrial Wastes, established in May 1950, on invitation of the Surgeon General, has been increased to cover 36 major industries of the country concerned with water pollution and the improvement of the Nation's water resources. Task groups have been established and substantial progress has been made both in assembling technical information covering existing practices in reducing waste and in inventorying research (in progress and pending) on the development of better methods of treating wastes. The last meeting of the Technical Task Committee was held in Cincinnati at the Environmental Health Center early this year.

INTERNATIONAL COOPERATION

Assistance to the International Joint Commission (United States and Canada) has continued through participation in the work of the Boards of Technical Advisers. The report of the Commission on the

investigation of boundary water pollution conditions along the St. Mary's River, the Detroit and St. Clair Rivers and Lake St. Clair, and the Niagara River has been completed and will be issued in October 1951.

Better Health on the Job

The field of occupational health presents a far greater challenge than has heretofore been realized. It is becoming increasingly obvious that occupational health must encompass not only the worker's environment while actually on the job but also his home, his family, and his community, as they affect his health.

The general expansion of industry and its movement into previously nonindustrialized areas has intensified existing problems in occupational health and created new hazards. To meet these new demands, the Public Health Service's Division of Industrial Hygiene, in cooperation with State and local health agencies and with labor and management, has pursued a broad program including field studies in industries, the development of new instruments to detect occupational hazards, studies of absenteeism, and evaluation of the use of nursing service in industry.

STUDIES OF INDUSTRIAL HAZARDS

Uranium

A major activity was the study of health hazards associated with the mining and milling of uranium ore. Work completed in the Colorado Plateau in the past year now substantiates the thesis that miners there are exposed to silica-containing dust and to radiation. Participating with the Division and the Colorado State Department of Public Health are the Atomic Energy Commission, the Los Alamos Scientific Laboratory, the Naval Radiological Defense Laboratory, the National Bureau of Standards, the Universities of Rochester, Colorado, and Utah, and the New Mexico, Arizona, and Utah departments of health.

To date, physical examinations, including X-ray and clinical tests, have been performed on approximately 800 miners and millers. Industrial hygiene physicians will conduct periodic medical studies in the next 5 years to determine health effects. Data for the evaluation of the degree of exposure to hazardous materials were gathered in 4 mills and approximately 50 mines.

The Division is assisting the companies in establishing a radiation and dust control program. It is hoped that, because of early and precautionary measures which many companies have inaugurated, cases of serious health damage will not occur.

Chromate

At the request of the chromate-producing industry, a study was conducted in 7 plants employing 1,000 workers. Evidences of lung cancer, as well as findings of perforated nasal septa and chrome ulcers, have confirmed suspicions of hazards in this industry. At the recommendation of the Division, certain changes in production processes were made to decrease harmful exposures. These recommendations and detailed clinical and environmental findings will be presented in a report now in preparation.

FERROUS METALS

The findings of a 12-month survey of the exposures of ferrous foundry workers to silicosis and other hazards was published. The report revealed that dust conditions in the 18 foundries studied, as compared with those found by industrial hygiene agencies in previous surveys of the foundry industry, have improved in the past 10 to 20 years. Evidences of observed lung disease were considered to be due largely to the high dust concentrations that existed previously in the foundries. Room for improvement was noted, however, and appropriate recommendations were made for the control of silicosis and other health hazards.

Air Pollution

The Detroit, Michigan-Windsor, Ontario air pollution study, undertaken at the request of the International Joint Commission, proceeded. Both the Canadian and the United States Governments are participating in the study. The American phase is conducted by the Division of Industrial Hygiene. The 5-year study should yield valuable information pertinent to other air pollution problems.

The town of Poza Rica, Mexico, was the site of another air pollution study in the past year. Deadly hydrogen sulfide gas escaping from a refinery resulted in the hospitalization of 315 persons, and 22 deaths. Division personnel and representatives of the United States Bureau of Mines investigated the incident and made recommendations to prevent a recurrence. Assistance with preliminary surveys and epidemiological studies of air pollution was also given in Cumberland, Md., and Salt Lake City, Utah.

LABORATORY ACTIVITIES

Considerable work was done to develop more precise and sensitive methods of evaluating trace concentrations of toxic metals in the blood and urine. A refinement was also made in the electrostatic precipitator, an instrument useful in air pollution work. The development of a new high-voltage power source for the electrostatic precipitator

has resulted in a more efficient, more reliable, lighter, and less expensive unit. An instrument known as the spiral sampler, also developed during the past year by members of the Division staff, gives promise of being a useful tool for studies of particulate matter, since it collects dust samples in such a way that the particles are automatically separated according to size. In addition to dust tests, extensive experiments have been undertaken to determine the ability of the spiral sampler to remove bacteria from the air and to adapt it for purposes of sampling airborne organisms.

Toxicological research continued on a number of substances, including the new insecticide, parathion, which has been responsible for a number of accidental poisonings. Respiratory diseases resulting from the inhalation of herbaceous dusts were also studied. Laboratory research continued on industrial anthrax from the processing of imported carpet wool. An epidemiological study of this disease was completed, control recommendations were made, and a report was published.

SPECIAL STUDIES

A pilot study of selected manufacturing industries was initiated to determine the amount of nursing service utilized in the various phases of an occupational health program. The data was expected to promote fuller use of nursing service in industry, based upon employee health needs.

A pilot study to develop a Nation-wide occupational disease reporting system is in full swing. Some 7,000 individual reports of occupational diseases have been received from the 10 participating State divisions of industrial hygiene, and a good start has been made in the classification of these reports. Upon completion of the study in December 1951, a bulletin on reporting practices will be prepared. The study should result in recommendations for uniform, adequate reporting on occupational diseases.

CONSULTATION AND PUBLICATION

Consultation on a wide range of medical, dental, nursing, statistical, analytical, and engineering problems was provided upon request to a large number of States, municipalities, and official agencies. Assistance was given the St. Louis County Department of Health in organizing and conducting a preliminary survey of the industrial health problem in its area as a basis for reestablishing a permanent industrial health program in the county. As part of the Division's educational program, an industrial nursing consultant was assigned for the second full year to Yale University to develop occupational

health nursing curricula. Industrial hygiene courses have also been conducted for the medical and engineering students at the University of Utah.

To meet increasing demands from management, labor, and professional groups for information on in-plant medical and prepayment programs, a comprehensive sourcebook covering significant aspects of plant medical services and related health programs, was compiled and published. To make health services available to workers in small plants, an extensive annotated bibliography on "Small Plant Health Programs" was also published.

The report of sickness-absenteeism in industry (covering approximately 178,000 persons) showed higher absences (due to sickness and nonindustrial injuries) in 1950 than in the preceding years. There were 116.8 per 1,000 men, the highest annual rate since 1945, when the rate was 147.4. The frequency of disability among the women (258.4 absences per 1,000) was the highest of the annual rates for the 10-year period 1941-50, exceeding the 1949 rate of 254.5 by 2 percent. These rates of sickness-absenteeism characteristically reflect a period of high production.

Progress Against Venereal Disease

Less syphilis was reported in 1951 than in any year since 1929, and less gonorrhea than in any year since 1942. Nevertheless, nearly 200,000 cases of syphilis and more than 270,000 cases of gonorrhea were reported among civilians in the United States. The expansion of the armed forces and of defense industries, meanwhile, poses new problems of control. During the year, the Public Health Service, along with State health departments, assigned case-finding specialists upon request to military posts.

Among the difficult problems in venereal disease control are the following:

1. The 3,000,000 positive serologies which are probably present in the United States.
2. The biology of the spirochete and of immunization in syphilis.
3. The lack of specificity of laboratory procedures.
4. The care and prevention of late symptomatic syphilis.
5. The application of technical knowledge and operational skills in case finding to all of the areas needing assistance.
6. The final evaluation of penicillin therapy.
7. The failure of gonorrhea incidence and prevalence to respond satisfactorily to any control procedures yet applied.

Despite these problems the records of clinics and rapid treatment centers reflect the vigor with which health departments are proceeding against venereal disease. Diagnostic observations completed in

clinics, numbering over 2.4 million, resulted in the admission for treatment of more than 388,000 individuals with venereal disease. About 450,000 investigations were made in 1951 to find cases of venereal disease and bring them to treatment. Admissions to venereal disease in-patient centers numbered 110,000.

The Public Health Service, through the Division of Venereal Disease, assisted health departments in their case-finding activities and in other aspects of their control programs. The three major steps in case finding are public education, mass testing, and contact tracing. Fifty-eight case-finding projects in 34 States received aid in the form of funds, services, and supplies. The Division assigned a team of specialists to the Virgin Islands which, in cooperation with the Island's health department, conducted a venereal disease survey.

A recent study conducted by the Division demonstrated that performance of serologic tests over the Nation is fairly adequate. Results of this survey indicated a universal willingness not only to adopt improved tests as quickly as they are developed but also to strive for improved performance.

RESEARCH IN VENEREAL DISEASE

Research in venereal disease went ahead in the three research centers of the Division of Venereal Disease, as well as in nongovernment institutions. Research centers operated by the Division are: The Venereal Disease Research Laboratory, Chamblee, Ga.; the United States Public Health Service Medical Center, Hot Springs, Ark.; and the Venereal Disease Experimental Laboratory, Chapel Hill, N. C. Among the perplexing and vital problems under study in the Division's broad research program are (1) immunity in syphilis; (2) the artificial cultivation of the organism which causes syphilis, *Treponema pallidum*; and (3) certain variations in the response of the organism, therapy, and the host. Under investigation was one procedure—the treponemal immobilization test—which may strengthen the laboratory diagnosis of syphilis.

One of the basic functions of the Venereal Disease Research Laboratory at Chamblee, Ga., is the maintenance of standards of serologic work in State and local laboratories. It supplies antigens to these laboratories and evaluates their serologic procedures. During the year, it also provided serologic analysis for approximately 14,000 blood specimens obtained in the Virgin Islands, and 228,000 specimens tested in the Atlanta health screening program.

PROSPECTS FOR CONTROL

In viewing the picture of venereal disease control at the end of the year, two principal lessons may be discerned for the future. First, the methods used in control are sound, but persistence is required in

their application. From the public health point of view, there is no known way to control venereal disease except to find it early and, through treatment of individual cases, to cut off its killing and crippling potential. Second, while knowledge of the treatment, clinical course, and fundamental biology of venereal disease is expanding yearly, there are still great gaps in our knowledge, particularly in syphilis. To help fill in these gaps, study and research must continue to go forward.

Chronic Diseases and Tuberculosis

The Division of Chronic Disease and Tuberculosis was established midway in the fiscal year by merging the Division of Chronic Disease and the Division of Tuberculosis. The action was taken to combine the many characteristics and objectives common to the control programs of both divisions. To utilize the comparable skills found in both programs economically and flexibly, a threefold division of labor was assigned: scientific research, program development, and State aid. Tuberculosis control and the chronic disease programs alike should benefit from the techniques already developed and the experience gained separately in the two activities.

TUBERCULOSIS CONTROL

Tuberculosis, about which medical knowledge is great, was emphasized by the Division during the year. The latest reported death rate (estimated, 1950) was 22.6 per 100,000 population. There were, however, more than 120,000 newly reported tuberculosis cases in the United States in 1950, or more than $3\frac{1}{2}$ new cases per death. This is the highest ratio of new cases per death ever recorded. Mass X-ray survey reports and health department case record reports taken together suggest that there are in the United States a total of approximately $1\frac{1}{2}$ million tuberculosis cases. The picture thus presented statistically prohibits any slackening of efforts to improve and strengthen the existing control programs.

Through the Division's mass case-finding program, over $1\frac{1}{2}$ million people were X-rayed in Arizona, California, and New Mexico, and in special programs in Minneapolis and on Indian reservations. Nurses, medical social workers, health educators, and statisticians from the Division assisted communities in planning their mass X-ray surveys, in anticipating an increased need for services, and in organizing local resources to provide essential medical and social services for patients in whom tuberculosis and other diseases were found.

Further support was given to general tuberculosis control activities in the States through grants-in-aid totaling \$6,350,000.

During the year the Division continued to participate in research on the use and limitation of streptomycin and other antibiotics for the treatment of tuberculosis. Several of the principal studies of antibiotics have already been completed and the results published. Others are still being analyzed or are due to be evaluated soon.

Some major programs designed to aid in the evaluation of BCG vaccination were completed during the year. On others, follow-up activities were continued. Long-term studies involve the follow-up of vaccinated and unvaccinated populations to determine the effect of BCG vaccination upon the development of tuberculosis. Shorter projects deal with such matters as variations in the degree of allergy to vaccines from American and European producers and among various methods of vaccination; investigation of different testing techniques; and development of vaccination lesions.

Progress was made in developing a technique for producing high quality facsimiles of X-ray films—which are important as training materials for X-ray interpretation courses—and in further standardization of photofluorographic and roentgenographic equipment.

CHRONIC DISEASES

Major efforts were also made toward increasing knowledge and control of heart disease and diabetes, through laboratory and field research and the strengthening of professional services. For the fiscal year, \$1,700,000 in grants-in-aid was available for heart disease. Of this sum, \$1,359,000 was paid to the States and Territories. Professional education was emphasized, and efforts were made to stimulate rheumatic fever case finding and prophylaxis. Cooperative heart disease demonstration programs were operated at Newton, Mass., and Charleston, S. C. Almost 3,000 people were screened for heart disease at Newton this year. The anticoagulant program now being carried on nationally was developed here, and medical technologists from Massachusetts and Florida were trained in the accepted methods of prothrombin time determination. In the Charleston program a great amount of work was done in the detection, referral, and prophylaxis of persons with rheumatic fever.

Weight reduction was promoted by nutritionists working in both demonstration programs. Several institutes on nursing education were held and the Division's nurses gave consultation services to several State health departments on heart disease control problems.

Consultative service by physicians, nurses, and nutritionists on diabetes control was given in 20 States. The Milwaukee, Wis., detection program was completed. The Jacksonville, Fla., program was transferred to the State health department. In Massachusetts, a Study and Training Center was opened in cooperation with the Boston City Hos-

pital. The Oxford project was reopened to study the effect of the work done 4 years ago. An intensive evaluation of the more commonly used blood sugar and urine sugar tests was begun.

New approaches to the problems of chronic illness were explored by the Division during the year. Cooperative multiple-screening projects were operated in Richmond and Alexandria, Va.; Atlanta, Ga.; and Indianapolis, Ind.

In the home care demonstration project at Gallinger Hospital, Washington, D. C., an attempt was made to extend the professional services of the hospital to patients at home. Practical solutions to the problem of total rehabilitation of the disabled are also being sought at Gallinger. This pilot study has developed methods that materially reduce time spent in the hospital by patients receiving rehabilitation treatment. Patients in the study included those with diagnoses of hemiplegia, amputations, spinal cord injuries, major orthopedic disabilities, post-thoracoplasty tuberculosis, and cardiac disease.

During the year studies were also conducted in the fields of weight control, nutrition, and hygiene of the aging. A pilot study of the use of group methods in weight control was completed in Boston, Mass., while another pilot program dealing with the health problems of older people, was conducted in Montgomery County, Md. In addition, nutrition demonstrations and studies were completed in Brattleboro, Vt., and Columbus, Ohio.

Action Against Communicable Diseases

Despite the record of steady gains in the fight against communicable diseases, the Nation's health agencies still devoted considerable time and attention to this important public health activity. They sought, for example, to extend and improve present control programs and to find ways of combating common infections, such as poliomyelitis and influenza, which still cause much suffering and disability. In addition, they maintained vigilance against the health hazards associated with a period of mobilization and took steps to prepare their defenses against epidemics, both natural and man-made.

The primary mission of the Public Health Service's Communicable Disease Center, with headquarters at Atlanta, Ga., is to assist State and local health agencies in all these activities and to help them strengthen their programs wherever possible. The Center also has the continuing responsibility for adding to the store of knowledge about communicable diseases and their control, through research and investigation. During 1951, as in previous years, the Center made its team of specialists available to study a variety of problems of public health significance. It also extended laboratory services, both ref-

erence and evaluative, to State and local health agencies, tested and improved diagnostic techniques, provided organized training courses for public health personnel, and assisted in investigations of major outbreaks of communicable diseases.

EPIDEMIC INTELLIGENCE

During the year, the Center also reoriented its activities to meet the mounting needs of national defense. For example, it expanded those programs particularly applicable to the potentialities of biological warfare. Priority was given to studies of airborne diseases and to the development of an epidemic intelligence system which could be readily used to detect epidemics resulting from enemy action. Epidemiologists were recruited and assigned to certain strategic areas where they could observe and become familiar with natural epidemics. Thus, a corps of trained and experienced intelligence officers should be available in the event of any emergency.

INVESTIGATIONS AND CONTROL

The role of flies in the transmission of poliomyelitis is being studied intensively in two cities—Charleston, W. Va., and Phoenix, Ariz. In these control cities, epidemiological studies are backed up by year-round antily fly campaigns, through the application of improved sanitation practices and the use of chemical sprays. Samples of fly specimens and sewage are collected and sent either to the Yale University Poliomyelitis Unit, or to the CDC laboratories in Montgomery, Ala., which are cooperating in the study for virus determination.

Fly control was also the basic measure used in programs designed to reduce infections and death from dysentery and diarrheal diseases. These programs are being conducted in cooperation with State and local health departments in the four States which have the highest mortality rates from dysentery and diarrhea.

Primary malaria transmission has become relatively rare in the United States, even in the formerly endemic areas. However, surveillance is still necessary. The Center continued to cooperate in residual spraying programs to eliminate the malaria-transmitting mosquitoes in 7 States. It also maintained malaria surveillance teams in 6 States which had full-scale control programs before 1951. Toward the end of the year there was a decided increase in the number of cases of malaria reported among servicemen returning from Korea. State and local health officials were alerted to the possible health hazards, and malaria surveillance teams concentrated on investigation of suspected cases of the disease.

The downward trend in reported human cases of murine typhus continued during 1951. The Center participated in the control operations

of the 12 States in which typhus is endemic. The principal methods of control are DDT dusting to eradicate the oriental rat flea, the principal vector of the disease; antirrat measures, such as proper storage, collection, and disposal of garbage; and rat poisoning and rat-proofing. The Center also helped States and cities outside the endemic typhus area to conduct rat control programs through training, surveys, demonstrations, and technical assistance.

Field and laboratory investigations in the ecology of encephalitis virus were continued during the year with the aim of finding practical methods of controlling the infection. Since recent findings suggest that mosquitoes transmit the encephalitis virus to humans and animals, investigators sought to discover how the mosquitoes acquire the virus, and from what source. Some progress was made, but firm conclusions depend on further research and the evaluation of existing data.

LABORATORY SERVICES

Laboratory services provided by the Center during the year included program reviews for laboratories in 26 States, special surveys of 10 local laboratories, examination of 100,000 or more specimens forwarded for diagnosis, and laboratory support in investigations of epidemics.

The Center undertook toxicological investigations to determine the health hazards resulting from the use of insecticides on fruits and vegetables. Such preparations as DDT, dieldrin, chlordan, aldrin, parathion were tested on experimental animals. Procedures are being developed to safeguard the health of people using these preparations and to assess more accurately their long-range effect on human health.

Dental Health Services

The fight against one of the most common of all diseases, dental caries, was greatly advanced during the year by clinical proof that the controlled addition of fluoride compounds to public water supplies will reduce incidence of tooth decay by 65 percent. Currently, 100 communities with a total population of almost 2 million persons are adding fluorides to their water supplies. About 100 additional communities have approved fluoridation, and another 168 are considering this step.

To encourage still wider use of fluoridation, the Public Health Service, through its Division of Dental Public Health, began an intensive program of information, training, and education. This program is being directed largely toward communities of 10,000 or less.

Most of these smaller communities, numbering about 15,600, do not have personnel trained in fluoridation. To assist States and local authorities in providing essential dental, engineering, chemical, and other technical services, additional staff members were assigned to the regional offices. Plans were developed to expand headquarters and field staff as requests for consultative and advisory services on fluoridation continued to increase.

Noteworthy progress was made in the Division's efforts to develop a more effective and simpler test for determining the fluoride content of water supplies. The test is particularly applicable to small water plants. A report on this development is being prepared.

TOPICAL FLUORIDE DEMONSTRATION

A 2-percent solution of sodium fluoride properly applied to the teeth of children will reduce tooth decay by 40 percent. This preventive procedure, of particular benefit to older children who will not obtain the full benefits of fluoridated water, was demonstrated by 35 field units in 340 locations. Since September 1948, demonstrations conducted in 1,105 focal point locations have resulted in the establishment of 450 locally financed topical fluoride programs.

Although Federal support of the Topical Fluoride Demonstration Program was curtailed during the later part of fiscal 1951, increased financial participation by State health departments and communities has permitted its continuation.

As a side effect of the topical fluoride demonstration program, schools of dental hygiene increased from 15 in 1947, to 28 in 1951. At the start of the demonstration program in 1948, 39 States and the District of Columbia licensed hygienists. They are now licensed in all 48 States, the District of Columbia, and Hawaii.

Multiple Chair Procedure

The multiple chair procedure for applying topical fluorides proved a successful device for increasing the productivity and efficiency of hygienists assigned to demonstration units. A training film documenting the procedure has been produced and distributed to interested State and local health organizations.

REMOVAL OF EXCESS FLUORIDES

Although fluoride in drinking water will reduce tooth decay 65 percent, too much fluoride will produce fluorosis, a discoloration of the teeth. The problem of how best to remove the excess fluorides present in some drinking waters and still retain the beneficial effects of 1 to 1.5 parts of fluoride per million parts of water is being studied at Britton, S. Dak., and Bartlett, Tex. In the Bartlett project, de-

fluoridation pilot plant operations have been completed, and full-scale equipment is being installed as construction of the new water treatment plant progresses.

Two patents were issued to Sanitary Engineer F. J. Maier and placed in the public domain, one involving a method for removing fluoride ions from water, the other relating to an improved method for regenerating mediums used in the defluoridation of public water supplies.

CHILDREN IN DENTAL CARE STUDIES

The first three rounds of examinations and dental treatments have been completed in the Richmond, Ind., dental care project. An average of 4,700 children received complete dental care in each of the first three rounds.

In the dental care project at Woonsocket, R. I., the first two rounds of examinations and dental treatments have been completed. About 5,600 children received examinations and complete dental treatment in each of the first two rounds. In both Woonsocket and Richmond, dental care needed per child has been successively lower for each round, reflecting the effectiveness of the programs.

One of the objectives of these various projects—increasing the dentist's productivity through the use of auxiliary dental personnel—is being documented in a film entitled, "Dental Assistants. Their Effective Utilization."

A study was made of the attitudes of community leaders in six northeastern communities visited by sodium fluoride demonstration teams. This study, now being prepared for publication, attempts to identify the principles of organization that will help communities to solve their health problems.

Arctic Health Research Center

The Arctic Health Research Center, now in its third year of operation, continued its investigations and research into human health and adjustment in low-temperature areas. The Center, with headquarters at Anchorage, Alaska, studies animal-borne disease, physiology—as it relates to metabolic rates, body temperature, and insulation of animals and of man—environmental sanitation, bacteriology, and related fields of biology and public health. Basic data concerning many fundamental problems of disease control, sanitation, and physiological adjustment to arctic living are being accumulated.

The Center is also conducting other special studies on the health status of the various population groups in Alaska. A morbidity survey, the first of its kind in Alaska, was recently launched by the Center in the Anchorage area. This survey is expected to yield more precise

information of the kind and extent of illness in the Territory and to create a clearer picture of health needs.

Since the outbreak of hostilities in Korea, emphasis in the Center program has been shifted, wherever possible, to defense-related activities.

Studies of sewage disposal systems, accidental and violent death in Alaska, and the analysis of diet and nutrition on the Alaskan population are being continued. The studies of nutrition have interrelated the factors of diet to specific food sources, population trends, psychosocial aspects of people's habits in food consumption, and the preservation and storage of food.

In another area, preliminary studies have shown that about 30 percent of the Eskimos give positive intradermal reaction to trichinosis tests. Another significant study begun last year is of echinococcosis, or dog tape worm, which has been found not only among dogs but in many animals which are important sources of food supply. Still a third special study relates to gastrointestinal disturbances in Alaska which seem to be linked to the problems of water supply and sewage disposal.

Considerable time has necessarily been given to the recruitment of a well-trained scientific and supporting staff in order to develop a well-rounded program of research and investigation.

The Center continued to assist the Territory of Alaska in meeting some of its pressing health problems. By assigning professional personnel to the Alaska Department of Health and by making supplementary funds available, the Public Health Service helped to strengthen and enlarge health services throughout the Territory.

Health Education

One of the objectives of the Public Health Service is to develop a popular awareness of health needs. The Service gives momentum and direction to the effort—in part, through its Division of Public Health Education. During the past year, the Division assisted 14 States and 15 communities in health education procedures, its aid varying from a comprehensive State program to a brief consultation with a local institution for underprivileged girls.

The Division of Public Health Education assisted operating units of the Public Health Service in the educational phases of their activities through joint program planning, recruitment, training and assignment of personnel, and in pretesting and evaluation programs. Advice on methods of pretesting and evaluation was given to seven Divisions. Experimental testing of eight other programs was performed.

At the request of the Division of Chronic Disease and Tuberculosis, a pretest and evaluation of the effectiveness of a program of group instruction on self-care for individuals with diabetes was carried out. Among the educational materials pretested for reading difficulty, understandability, and the extent to which the information applied to the audience for which it was intended, were two pamphlets on self-examination of the breast for cancer, a pamphlet on environment and health, a projected movie on heart disease, a manual on rat-borne disease in the United States, an inquiry card on reactions to a new style of abstracting current venereal disease literature, a pamphlet on medical certification of cause of death, and pamphlets used in mass chest X-ray surveys.

The Division of Public Health Education assisted the Division of Dental Public Health in a study to identify the principles of organization most effective in encouraging communities to solve local health problems.

The Division also advised the Institutes of Inter-American Affairs and the Economic Cooperation Administration on the recruitment of health education personnel in other countries. Technical advice was given to health educators assigned to Indochina, Burma, Thailand, Peru, Brazil, Chile, and Greece.

A working relationship in problems of school health has been developed with the Children's Bureau and the Office of Education. As a result, "Priorities in Health Services for Children of School Age" was developed and published jointly by these two agencies and the Public Health Service. A second publication, "Better Health of School Age Children," has recently come off the presses. Similar co-operative activity between State school officers and health officers has been developed with assistance from the Public Health Service and the Office of Education.

Hospital and Medical Care

Historically, the first function of what is now the United States Public Health Service was the provision of medical and hospital care for the Nation's merchant seamen. Through its Bureau of Medical Services, the Public Health Service has widely expanded its activities in this field. The facilities of the Service, and the large number of its commissioned and civil service employees—about half of all Service personnel—engaged in providing medical and hospital care to thousands of Americans, constitute a significant part of the Nation's health resources.

Hospitals of the Public Health Service

The Public Health Service's hospitals, clinics, and medical offices serve segments of the population designated by Congress as beneficiaries of the Public Health Service. American merchant seamen, officers and enlisted men of the United States Coast Guard, Coast and Geodetic Survey officers and crew members, and commissioned officers of the Public Health Service are among the eligible occupational groups. Other persons receive medical attention by the Service because of illness requiring long and specialized hospitalization—patients with Hansen's disease (leprosy) and men and women who are addicted to narcotic drugs as defined by Federal law.

The Public Health Service operates 23 hospitals, 18 full-time out-patient clinics, and over 100 part-time out-patient offices. The Ellis Island hospital was closed early in 1951, and the patients transferred to other establishments. The hospitals are located chiefly in busy shipping ports; the clinics and offices are in smaller centers where designated beneficiaries are less numerous. During the year, nearly 70,000 patients were admitted to the hospitals, an average of 189.7 per day. The average daily in-patient census was 7,347.9 and the number of visits to out-patient stations totaled 1,072,252.

At the close of the year, the former United States Marine Hospitals—21 of the 23 stations—were redesignated as United States Public Health Service Hospitals.

HANSEN'S DISEASE

The United States Public Health Service Hospital at Carville, La., is the only institution in the continental United States where a patient with Hansen's disease (leprosy) may be assured of proper care and treatment. Since the stigma attached to this disease from earliest times still persists in some measure, the program at Carville seeks to meet the social, as well as the medical problems that occur for its victims.

From January 1, 1941, to December 31, 1950, the Carville Hospital admitted more than 500 patients. They came from 40 States, the District of Columbia, the Philippine Islands, Hawaii, and the Canal Zone. Over 60 percent were foreign born, the largest number of this group coming from Mexico.

The successful trial of the sulfone drugs has been the hospital's most noteworthy accomplishment. The administration of promin, diasone, promacetin, and sulphetrons has improved not only the Hansen's disease involvements but also the general health of the patients.

The expansion of the physical therapy and occupational therapy services have also brought good results. In 1950 a medical social service program was initiated.

The Carville Hospital has grown into a self-contained community with a governing body composed of patients; social and benevolent organizations such as the Boy Scouts, American Legion, and Lions Club; weekly and monthly publications; a local post office; and a wide range of recreational and athletic facilities. The public's increasingly humane and realistic attitude toward the patients is a notable sign of progress. Where 10 years ago very few visitors came to the hospital, the staff now spend some part of almost every day receiving guests. The Baton Rouge Symphony Orchestra, members of the School of Music at Louisiana State University, and other entertainment groups appeared at Carville during the past year.

NARCOTIC ADDICTION

The United States Public Health Service Hospitals at Lexington, Ky., and Fort Worth, Tex., are concerned with the physical and mental rehabilitation of persons addicted to narcotic drugs. Certain Government beneficiaries suffering from other mental illnesses also receive treatment. During the year, these hospitals reported record population figures, reflecting increased voluntary admissions. The Lexington and Fort Worth Hospitals admitted 5,666 patients at a daily average rate of 15.5. The number of patients treated totaled 7,986. The facilities for treating addicts were frequently taxed heavily during the year. The Lexington hospital with a capacity of 1,400 had a total of over 1,500 patients in November 1950.

The treatment of drug addicts usually consists of two phases—the removal of physical dependence and the relief of psychological dependence upon the drugs. The former is a relatively easy procedure, consisting of gradual withdrawal of the drug over a period of 2 weeks or less. The alleviation of psychological dependence is a more difficult process. Time spent in a drug-free environment is a significant factor. Patients who leave immediately after withdrawal from drugs almost invariably relapse. Studies indicate that the addict does not return to physiological normality for approximately 4 months.

During the year, the newspapers, magazines, radio, and television stations over the country devoted much attention to the upsurge of addiction among youngsters under 21. A study of the records at Fort Worth and Lexington shows that in 1946, patients below the age of 21 comprised 3 percent of the census; by 1951, when the patient count was higher, the proportion of addicts in this age group had risen to 18 percent. Many of these youngsters gave no history of crime or delinquency prior to addiction. Psychiatrists tend toward an opti-

mistic view for these young people. Their problems are not comparable to those of older addicts. The Service feels called upon to do everything possible to save these young people from years of tragedy.

FREEDMEN'S HOSPITAL

Freedmen's Hospital in Washington, D. C., established during the Civil War to give treatment and care to sick and destitute Negro refugees, has 347 beds for general medical and surgical care, 51 bassinets, and a separate 135-bed annex for patients with tuberculosis. A total of 12,075 persons received in-patient care during the year, a slight increase over 1950. The out-patient service with its 37 clinics and emergency operating room gave treatment to over 100,000 people.

A total of 180 physicians and other hospital personnel received training during the year at Freedmen's Hospital. The hospital now has American Medical Association approval for specialized training in internal medicine, radiology, dermatology, syphilology, urology, surgery, obstetrics and gynecology, neurology, pulmonary diseases, pediatrics, and orthopedics. The close cooperation between Freedmen's Hospital and Howard University continued.

Foreign Quarantine Service

In the calendar year 1950, our Nation had its lowest incidence of smallpox—42 cases—while altogether 216,526 cases of this disfiguring disease were reported in 71 foreign countries, including 500 cases in Mexico. England and the Netherlands were among the nations reporting outbreaks in 1951. Quarantine officers vaccinated 266,422 persons arriving in the United States during the year.

Jungle yellow fever spread markedly in the Andean region of South America, and a severe flare-up occurred in recently settled areas of central Brazil; most significant was its spread northward from Panama into Costa Rica, which is outside the designated endemic area. Health authorities in the Miami, Fla., area expressed concern over the high index of *Aedes aegypti* (the yellow fever mosquito) in this region; this mosquito is prevalent in southern United States. Eighty-two laborers en route from the interior of British Guiana were detained at San Juan, P. R., for the 6-day incubation period of yellow fever, because insufficient time had elapsed to establish immunity after their vaccination.

There were 20,417 arrivals of ships from abroad, 28,311 of aircraft, and 31.6 million of persons subject to foreign quarantine regulations.

Entomological surveillance of airports—carried on to prevent introduction of medically important insects—was extended to included several reactivated military air fields.

The Chief of the Division of Foreign Quarantine served as chairman of the World Health Organization's Expert Committee on International Epidemiology and Quarantine when it met in Geneva, Switzerland, to revise the draft of International Sanitary Regulations. These Regulations will become effective October 1, 1952. A representative of the Division served on WHO's Expert Committee on Insecticides, which promulgated recommendations regarding the disinsecting of ships and aircraft. Because of its experience in disinsecting ships, the Division has been requested to assist WHO in planning a scientific study of problems relating to accidental transportation of medically important insects by ships.

The exclusion of persons with mental defects, tuberculosis, and dangerous contagious diseases as required by law constituted a significant contribution to our fight against these conditions in our own population. The Service made 1,697,790 examinations of persons seeking admission to the United States, and certified 7,775 as having excludable diseases (certifications included 625 cases of mental disease, 3,921 of tuberculosis, 4 of leprosy).

Expansion of the displaced persons immigration program required further extension of the displaced persons medical examination activities carried on since 1949 in addition to the regular immigration medical work. Through the inclusion of new categories of refugees, the work load was increased in Germany and Austria, and operations were extended to Greece, Great Britain, and the Philippine Islands. The displaced persons work was conducted under many handicaps, including an insufficient number of qualified medical examiners. There has been a high prevalence of tuberculosis among the displaced persons, resulting in an accumulation of tuberculosis suspects among visa applicants. By May 1951, more than 3,800 applicants were being observed for this disease. In order to reach a decision on these cases prior to expiration of the Displaced Persons Act, the Service appointed a Board of Tuberculosis Specialists (one member from the Public Health Service, three from outside) to appraise the cases in Europe. The Board found 70 percent of these applicants ineligible for immigration.

Foreign Quarantine Regulations were amended to legalize the procedure of boarding ships for quarantine and immigration medical inspection at the dock instead of in a quarantine anchorage. Dockside boarding was instituted at an additional major station—Tampa, Fla.

Medical Services for Federal Agencies

The Public Health Service details medical, dental, psychiatric, and nursing personnel to aid various Federal agencies with their health

programs. The duties of these professional workers carry them to Indian reservations, to foreign lands, to prisons, and to distant seas in ships. Wherever they go, they contribute to the health of Americans.

OFFICE OF VOCATIONAL REHABILITATION

The basic objective of the Federal-State program of vocational rehabilitation is to restore disabled persons in body and spirit, to aid their progress toward the dignity of self-support. The medical services of this program are essential in correcting or alleviating conditions which are a handicap to employment. Among the persons who have required rehabilitation over the past few years, there has been a steady increase in the percentage receiving medical and surgical treatment and other restoration services. In 1951, 40 percent of all rehabilitation cases received such treatment.

Interest in establishing rehabilitation centers continues to grow throughout the country. The Office of Vocational Rehabilitation, Federal Security Agency, is frequently called upon by Federal and State agencies to assist in the evaluation of the need for a center, and to advise on problems of organization and operation. Concurrently, the need for physicians trained in rehabilitation techniques is also increasing. It is the aim of the Office to develop means by which medical officers of the Public Health Service and other physicians may gain experience in working with community and State rehabilitation programs, and thereby acquire knowledge of the problems involved and experience in the required skills.

Public Health Service Committee

The medical, social, and vocational rehabilitation of disabled persons is a public health problem of necessary importance. The Public Health Service has long had an interest in the medical and related aspects of rehabilitation. This has been evidenced in the assignment of Service personnel to the medical program of the Office of Vocational Rehabilitation, and in the development of research, training, and control programs in mental health and chronic diseases.

Early in 1951, the growing interest in rehabilitation culminated in the appointment by the Surgeon General of a Committee on Rehabilitation in the Public Health Service. The responsibilities of the Committee include: (1) study of the existing rehabilitation activities of the Service; (2) work with the program divisions on ways and means of strengthening rehabilitation services; and (3) development of proposals for new or increased rehabilitation activities. The committee functions in an advisory capacity to the Surgeon General and is expected to formulate policies for his consideration.

The Committee on Rehabilitation is under the chairmanship of the Chief of the Bureau of Medical Services, and its membership includes the Director of the Office of Vocational Rehabilitation and representatives from each bureau. A task force has been appointed to assist the committee in its fact-finding studies and in the coordination of data and recommendations. The task force comprises representatives from each of the bureaus and the Office of Vocational Rehabilitation. It includes individuals from the fields of medicine, dentistry, nursing, medical and psychiatric social work, education, vocational counseling, and public health administration.

At the close of the fiscal year, the task force had completed a survey of 15 divisions of the Public Health Service. It had developed a series of recommendations for consideration by the committee covering: (1) rehabilitation in specialized health programs; (2) training of rehabilitation personnel; (3) research in rehabilitation; and (4) rehabilitation of employees of the Federal Government and of private industry.

BUREAU OF EMPLOYEES' COMPENSATION

Under provisions of the Compensation Act of 1916, medical care is provided to Federal civil employees for injuries received in performance of duty, and for diseases attributable to conditions of employment. Medical examinations and treatment, including out-patient or hospital care, are provided through the facilities of the Public Health Service hospitals and clinics and, to a limited extent, the medical installations of other Federal agencies.

An average of 30,000 to 35,000 cases were under consideration at all times during the year. These cases involved medical care, hospital services, dental care, prosthetic appliances, and preventive services.

One of the most important activities of the Bureau is the cooperative research and special studies program. Valuable progress was made during the year in the continuing research program set up several years ago for the study of mustard-gas bronchitis which occurred among employees of a Federal arsenal in Alabama. The in-patient clinical aspects of the study have continued at the Memphis Public Health Service Hospital with commendable results. Therapy for the patients has been directed in such a way as to take care of the basic pathologic physiology, and an apparent arrest of progression of the condition has been noted in a few cases.

Since claims for compensation involving retinal detachment have been occurring with considerable regularity, arrangements are being made for special study with reference to the etiology of this condition, with special emphasis on the role of various forms of trauma as a causative or aggravating factor.

Research is continuing on the relationship of various infectious diseases and industrial accidents to working conditions in Federal medical installations. For example, special studies are going ahead on tuberculosis as an occupational hazard in tuberculosis hospitals and medical installations; and on Q fever, brucellosis, and infectious hepatitis as related to work in laboratories and in the bureaus of the Department of Agriculture concerned with animal husbandry and dairying.

In keeping with the provisions of recent legislation, the Bureau is continuing to expand its rehabilitation services. A major part of this program is the cooperative service provided through various State vocational rehabilitation agencies. The special project established through the Alabama State Vocational Rehabilitation authorities for the rehabilitation of Federal arsenal employees disabled by mustard-gas bronchitis has produced gratifying results. A number of patients have now been rehabilitated for selective placement in other occupations.

Through the Office of Vocational Rehabilitation, Federal Security Agency, arrangements have been made with the Virginia State Vocational authorities to make use of the Woodrow Wilson Rehabilitation Center at Fishersville, Va., for the Rehabilitation of Federal employees. The center has excellent facilities for training disabled persons for various new occupations, and is prepared to give full in-patient services to patients not only from Virginia but from all parts of the country.

The pilot study on the rehabilitation of patients receiving medical care in Government hospitals has continued on a limited scale, due to the lack of funds and personnel. At the present time, the work is confined to surgical cases in the orthopedic services of three hospitals. It is the aim of the Bureau to extend this program by securing the active cooperation of surgeons throughout the country who are designated in accordance with the Compensation Act to care for Federal employees.

BUREAU OF PRISONS

The Public Health Service has furnished medical, psychiatric, dental, and nursing services for 21 years to the institutions operated by the Bureau of Prisons. The medical program aims to prevent the introduction of disease into the institutions, to treat disease and injuries incurred by the prisoners and staff, to correct remediable defects insofar as possible, and to conduct or assist in medical and psychiatric research.

More time has also been devoted to the rehabilitation of the sick and injured. Group therapy has been put to use more widely to determine the value of this type of psychiatric treatment in the prison setting.

Existing research projects were continued and arrangements made for new projects. In cooperation with the Laboratory of Tropical Diseases of the National Institutes of Health, a research project on malaria was started at the Atlanta Penitentiary. At the request of the Army and Navy, certain types of drugs developed during the war for the treatment of malaria will be evaluated. The primary purpose of the research is to find a drug to cure rather than simply suppress the disease.

During the year, plans were developed with the National Institutes of Health to start a project at the Federal Correctional Institution at Seagoville, Tex., on the epidemiology of human intestinal protozoa. This study is expected to reveal information which will be of value in the study of amebic dysentery.

An experimental project dealing with infectious hepatitis was begun at the Danbury institution in cooperation with the Armed Forces and Yale University. About 15 inmate volunteers have been selected for inoculation with a potent virus. This research will be directed toward detecting the size of the virus particles with a view toward attempting to remove the virus from plasma by ultrafiltration.

In many States the departments of health have been very cooperative with the institutions in performing X-ray surveys annually on both inmates and personnel. At the same time, many of the institutions have aided communities in such projects as blood banks and the development of civil defense programs.

UNITED STATES COAST GUARD

Since the vital weather ships of the Coast Guard are often at sea for weeks at a time without returning to port, the Public Health Service has assigned physicians to provide medical care for the crews. This service has resulted in improved health conditions aboard the ships and better morale.

One new complete motorized dental unit was commissioned during the year, and contracts were awarded for three additional units. These units provide a considerable dental service of a high quality to personnel on duty in isolated areas, and are an important morale factor.

Numerous inspections of medical and dental facilities were made during the year to improve the physical conditions of the various sick bays and infirmaries. Plans were drawn up and approved for Port Security Barracks' sick bays and dental clinics in various areas, as well as for the reestablishment of hospital spaces on two quarter barges.

MARITIME ADMINISTRATION

The medical service of the Maritime Administration, in the United States Department of Commerce, is staffed by medical, dental, and

nurse officers of the Public Health Service. The health program includes medical and dental in-patient and out-patient care for enrollees of the United States Maritime Service, and for Cadet-Midshipmen of the United States Merchant Marine Cadet Corps; the operation of health units in Washington, D. C., and New York City; and emergency rooms at eight Maritime Administration Reserve Fleets.

During the past year, medical and dental officers assisted in instruction in first aid and preventive medicine at several training facilities. The medical officers also cooperated in the accident prevention programs of the various units.

As in previous years, close cooperation was maintained between the reserve fleets and training stations on the one hand, and the United States Public Health Service and State health departments on the other hand, in matters relating to sanitary, safety, and bacteriological surveys.

BUREAU OF INDIAN AFFAIRS

Mortality and morbidity rates among Indians for whom the Bureau conducts a comprehensive health program continued to decline during the year, but still closely parallel the rates that prevailed among the general population some 40 to 50 years ago. This lag undoubtedly reflects the limited funds and personnel available for health services to the Indian population. Hospitals for the care of Indians were understaffed during the year, and no organized preventive disease program was in operation, except for the inadequate field nursing service provided in a few areas.

Health Services

Individual service programs carried out during the year included tuberculosis case finding, BCG vaccination in the control of tuberculosis, the topical application of fluoride among children as a dental caries preventive, and blood surveys for the detection of syphilis.

The development of BCG vaccine has made it possible to plan a service-wide vaccination program for newborn babies for 1952. This will be supplemented by a similar program for school-age children.

Material progress has been made in the expansion of the dental services program. The chief dental officer, assigned by the Public Health Service in 1950, has established headquarters in Denver, Colo., a point centrally located for service to Indians in the western United States. A Service-wide inventory of dental material has been completed, and a great deal of needed dental equipment and supplies have been obtained, mostly by transfer as surplus property from other Government agencies.

A total of 23,169 Indians were examined during the past year by the three mobile chest X-ray units. During the summer months, 3 additional units were on loan from the Public Health Service. Beds

available for tuberculosis treatment are inadequate in number, especially in the Southwest; but considerable assistance in hospitalizing tuberculous Indians is being given by States.

Hospitals

As of June 30, 1951, the Bureau was operating 62 hospitals, ranging in capacity from 15 to 420 beds. At Mount Edgecumbe, Alaska, 420 beds are now available. At Tacoma, Wash., an additional floor has been opened for tuberculosis patients. The 100-bed addition to the Montana State Sanatorium for Indians is under construction and should be in service early in 1952. At Anchorage, Alaska, a 400-bed hospital is under construction. Plans have been drawn for a 200-bed general hospital at Albuquerque, N. Mex., under management by Bernalillo County, which will have facilities for 80 Indians. A medical center, staffed by specialists in medicine and surgery, has been established at Pine Ridge, S. Dak. An emergency appropriation has been obtained for replacement of the 70-bed hospital at Bethel, Alaska, destroyed by fire during the year.

During the past several years, the turn-over in personnel has been great, and recruitment has been difficult. At the year's end, 125 medical officers were on duty in Indian hospitals, of which only 88 were full-time Bureau employees. About 250 physicians are needed to staff all Indian Service hospitals fully, but only 175 positions have been established for physicians. Many of the hospitals are operating with but one full-time physician, and two others are served part time by local practitioners. Supervisory medical service is rendered by 13 medical officers in the Central and Area offices, 7 of them detailed from the Public Health Service.

Training Programs

Because of the difficulty of obtaining an adequate number of nurses for its hospitals, the Bureau of Indian Affairs has spent considerable time and effort in nurse recruitment. Enrollment of students at the Kiowa School of Practical Nursing has been increased, and the course lengthened from 9 to 12 months, keeping abreast of changing conditions in the field.

Arrangements have been completed with the Training Division of the Public Health Service's Communicable Disease Center, Atlanta, Ga., for a training course in general and environmental sanitation for Indians who wish to take up this work. The course will be conducted on Indian reservations designated by the Bureau.

DEPARTMENT OF STATE

The health programs for Foreign Service personnel and for State Department employees have now been consolidated.

During the year approximately 6,000 medical examinations were ordered. In the past, these examinations were all conducted through the facilities of other Government agencies or through contracts with private physicians. This year, an examining facility with laboratory and X-ray has been completed in Washington, which, it is expected, will be able eventually to handle all examinations for the Foreign Service, the State Department, and other agencies closely associated with the Department.

New health units were established at Saigon, Bangkok, Madrid, Karachi, and Frankfurt, and an American nurse was assigned to Paris to take charge of the nursing program at this post. Arrangements were made to make use of military doctors at Djakarta and Saigon. The doctor at Saigon will also travel to Bangkok when needed. Assistance was given to existing health units at New Delhi, London, Belgrade, Warsaw, Cairo, Rome, Djakarta, Manila, and Tehran.

Progress in World Health

During the last 3 years, the world has seen greater improvement in health conditions than in any similar period in history. In spite of the troubled political outlook and precarious economic conditions, there is now far greater security of life in most free countries than ever before.

Low death rates are no longer a virtual monopoly of North America, Australia, New Zealand, and Northern Europe, as was the case before World War II. The general death rate of Italy in 1950 was 9.7 per 1,000 population, as compared with 9.6 for the United States. Malta, which up to the time of the war had death rates of 20 per 1,000 and over, had a rate of 10.7 per 1,000 in 1949. The improvement appears even in tropical countries. The 1949 general rates of 12.5 in Ceylon and 11.0 in Venezuela were the lowest on record in these countries.

The postwar expansion of international health programs has done much to bring about this recent progress in world health. The United States has taken a leading role in these programs, both through international agencies such as the World Health Organization and the Pan American Sanitary Bureau, and through bilateral programs with other democracies. During the year, the emphasis on aid to underdeveloped areas has been intensified. The immediate goal is to help the governments of these areas apply modern methods to their public health problems.

Despite the successful campaign of recent years, further efforts are essential to achieve a healthier world. Although approximately 50 million individuals are protected from malaria by residual DDT spraying, for example, there remain an estimated 500 million per-

sons who suffer from malaria annually. Many other serious, debilitating diseases which can be eliminated are greatly reduced by modern public health methods prevail in underdeveloped areas, chiefly throughout the tropical and subtropical regions. Programs directed against these diseases have the dual advantage of promptly improving the health and well-being of a large section of the population and of demonstrating to the people the benefits of modern public health work.

Role of the Public Health Service

The Public Health Service has assumed responsibility for planning, staffing, and supervising bilateral health programs in the Economic Cooperation Administration, and in the Technical Cooperation Administration (TCA) of the Department of State. A Public Health Service officer is in charge of the health program of the Institute of Inter-American Affairs, another agency of the Department of State. In addition, officers of the Service assigned to certain embassies and consulates of the United States render many services in the international health field.

The Public Health Service is also the official United States liaison with the World Health Organization and the Pan American Sanitary Bureau (PASB). Since the inception of WHO in 1948, the Surgeon General of the Public Health Service has served as Chief Delegate of the United States to the World Health Assembly, and officers of the Service are this Government's representatives on the executive boards of WHO and PASB. At the Fourth World Health Assembly, held at Geneva, Switzerland, in May 1951, the Surgeon General was unanimously elected President of the Assembly for a term of 1 year.⁴

All international activities of the Public Health Service are coordinated and administered by the Division of International Health in the Office of the Surgeon General. During the year, the work of the Division has been greatly expanded, primarily because of the increased activities of ECA and TCA.

Coordination of Bilateral and Multilateral Programs

During the year, special efforts have been made to coordinate bilateral programs with those operated by international agencies such

⁴ United States Delegation: Leonard A. Scheele, M. D., Surgeon General, U. S. Public Health Service, Chief Delegate; Roy Cleere, M. D., Executive Director, Colorado State Department of Health; and Mrs. India Edwards. Alternates: Frederick J. Brady, M. D., U. S. Public Health Service; H. Van Zile Hyde, M. D., Director of Health and Sanitation, Institute of Inter-American Affairs; and Howard B. Calderwood, U. S. Department of State. Congressional Advisors: The Honorable Herbert H. Lehman, New York, and the Honorable Richard M. Nixon, California. Seven technical advisors and secretarial staff accompanied the Delegation.

as the WHO, PASB, and UNICEF (United Nations International Children's Emergency Fund). In southeast Asia, for example, coordinating committees have been established in each country. The committees include representatives of ECA (Economic Cooperation Administration) and WHO as well as representatives of the Government. Requests of each country for bilateral and multilateral health projects are reviewed by its coordinating committee, and action by the appropriate agency is thus expedited. In Vietnam, for example, WHO was unable to inaugurate a program because the Vietnamese Government did not have sufficient local currency to contribute its financial share. Through the ECA, the Vietnamese Government obtained counterpart funds for this project which has now been launched by WHO.

The Public Health Service maintains close relationships with WHO and its Regional Offices. During the year, officers of the Service attended the WHO Western Pacific and Southeast Asia Regional Conferences, while representatives of WHO and UNICEF participated in a Southeast Asia Public Health Conference held by ECA in Bangkok. During the past year, five experts of the Service have been loaned to WHO as consultants.

Public Health Missions in 1951

The Public Health Service operated health programs in eight countries during 1951. In six of these countries—Greece, Turkey, Indonesia, Indochina, Thailand, and Burma—the health missions are part of the ECA over-all program. For the TCA, the Service is operating health programs in Liberia and Iran, as well as a regional training program for all Near East countries. At the close of the year, plans had been approved for ECA health programs in Formosa and the Philippines and for TCA programs in Ethiopia, India, Israel, and Jordan. The Public Health Service had also submitted proposals to TCA for programs in 12 additional countries. More than 120 public health workers have been recruited for the ECA and TCA programs.

BURMA MISSION

The program in Burma was initiated in November 1950. The Mission is composed of a chief public health officer, eight physicians, four nurses, four sanitary engineers, a health educator, two entomologists, and a sanitarian.

One of the most urgent needs in Burma is the rehabilitation of the country's bombed-out hospitals. A preliminary survey conducted in 1951 showed that only about 8,000 hospital beds—more than half of them in temporary buildings—remained to serve a population of 16

millions. A long-range national hospital plan is being developed, including a training program for Burmese technical and medical personnel to construct and operate the new hospitals.

Some progress has already been made in malaria control, venereal disease control, and environmental sanitation. In the southern part of Burma, where there are many refugee camps without adequate water supplies, a public health team is supervising the construction of an improved water system. The public health teams in all of these activities are made up of Burmese health personnel under the supervision of the Mission's staff. Burmese physicians are being trained to assume future leadership.

GREEK MISSION

The Public Health Mission to Greece has completed its fifth year. The projects in operation during the year included malaria control, hospital construction, nurse training, environmental sanitation, and venereal disease control. A large proportion of the work initiated in earlier years by the Mission has now been taken over entirely by the Greek Government. In this respect, the mission to Greece may serve as the pattern for other bilateral health programs.

The nurse training program continued to expand, and the work of visiting nurses in the health centers improved. A total of 456 students—twice as many as 3 years ago—was enrolled at the 4 Schools of Nursing in Greece.

INDOCHINA MISSION

Guerrilla warfare and political insecurity have made it difficult to develop a coordinated health program in Indochina. The country has only 230 physicians for a population of about 17.5 millions, and very few of these doctors devote time to public health work. The Public Health Mission to Indochina has therefore concentrated on Vietnam, where the immediate possibilities are greatest. The Mission is composed of a chief public health officer, four physicians, two nurses, a sanitary engineer, a health educator, a parasitologist, an entomologist, and a hospital administrator.

A trachoma control project started in September 1950 had 7 native teams in operation in North Vietnam by the close of the year, and 3 more teams were being formed. About 80,000 patients had been treated and more than twice that number had been examined for clinical evidence of the disease.

Between 60,000 and 100,000 persons are hospitalized in Vietnam each year for malaria, and upward of 350,000 clinic visits are made by persons with the disease. A malaria control program has been inaugurated with a view to reducing preventable deaths and sickness.

The Mission has trained civilian and army teams in DDT residual spraying, and during the year more than 114,000 houses in certain parts of Vietnam were sprayed. In addition, between 30,000 and 35,000 persons showing symptoms of malaria were treated with chlo-roquine. Nearly half a million posters and pamphlets were distributed in a malaria information program.

Under the supervision of the Mission, a village sanitary well project has been introduced in Vietnam. By the end of the year, 35 village wells had been completed and 245 were under construction.

Hospital equipment and medical supplies costing more than \$250,000 have been provided by the Public Health Mission to 27 of the neediest hospitals in Indochina. Four prefabricated hospitals have been procured for Vietnam.

INDONESIA MISSION

The Public Health Mission to Indonesia, begun in October 1950, consists of a chief public health officer, three physicians, a nurse, a sanitary engineer, and an entomologist. As in other Southeast Asia countries, control of malaria, trachoma, venereal disease, and other infections, better sanitation, better maternal and child health services, nutrition, and public health nursing are the primary needs. With only one physician per 100,000 population, Indonesia needs technical assistance in the field of public health and medicine.

Hospital and laboratory supplies and pharmaceuticals, costing \$3,500,000, have been ordered for the restoration of Indonesia's medical schools, hospitals, and laboratories. The Malaria Institute, part of the Eyckman Institute and malaria control branch of the Indonesian Ministry of Health, is being restored. Four DDT spraying projects were in operation at the close of the year.

A class in nursing has been started for Indonesian nurse-midwives who are interested in obtaining fellowships for advanced study outside the country. The Mission's nursing consultant has conducted training classes for nurses of the Ministry of Health.

Medical fellowships have been provided through the Mission to enable a number of prominent Indonesian physicians to take advanced training in the United States.

IRAN MISSION

The first comprehensive technical cooperation program initiated under Point Four was started in Iran early in 1951. Experts in the fields of health, agriculture, industry, and education are cooperating in an integrated rural development program. During the year, the Public Health Service assigned to the Mission a medical director, a chief sanitary engineer, and two nurses.

The Iranian Government's malaria control program has been expanded. A large-scale DDT residual spraying program is under way. Some 7,000 villages were sprayed during the year. Iranian manufacturers are now producing some spraying equipment. By arrangements with 1 Iranian manufacturer, 2,000 sanitary privies were built for use in demonstration villages. Sanitary wells have also been dug in these villages, and an irrigation system has been started in the demonstration area.

LIBERIAN MISSION

The Public Health Service Liberian Mission, established in 1944, was integrated in 1951 with the TCA program. The staff is composed of a medical director, two physicians, two nurses, a sanitary engineer, an X-ray specialist, and a laboratory specialist. Their advisory services to the Liberian Government in malaria control, nurse training, and other health fields were continued. A midwifery program is in operation at the school of nursing in Monrovia for training instructors who will return to their native villages to train local midwives.

THAILAND MISSION

The Mission to Thailand, started in February 1951, is composed of a chief public health officer, five physicians, two nurses, two sanitary engineers, one health educator, three entomologists, one parasitologist, and a consultant in maternal and child health.

Malaria cases in Thailand are estimated at up to 3 million annually and 20 percent of all deaths are ascribed to this disease. The Mission is cooperating with the WHO, UNICEF, and the Thai Government in a demonstration initiated in 1949. Progress during the year included the spraying with DDT of 40,606 houses in two northern provinces, thus protecting nearly 200,000 persons. A similar demonstration of filariasis control is being developed in an endemic area with a population of 100,000.

A venereal disease control program, employing penicillin therapy, has been inaugurated. A venereal disease consultant furnished through the Mission is teaching in the two medical schools of Siriraj and Chulalongkorn in Bangkok.

An intensive trachoma campaign among school children was launched in one province and will soon be extended to four others. A total of 4,500 school children have been examined and about 1,700 of these have received treatment. The Mission has assigned a consultant in infectious diseases of the eye to the project and has provided 194,000 tubes of aureomycin ophthalmic ointment, as well as 100 bicycles for use of the trachoma teams.

Equipment and materials for construction and maintenance of 4,000 shallow wells have been ordered to provide satisfactory water supplies in the rural sanitation program.

The Mission is participating in a nutrition program established by the Thai Ministry of Health and the Chulalongkorn Red Cross Hospital. Nutritional capsules and laboratory supplies have been provided.

TURKISH MISSION

The Public Health Mission to Turkey, consisting of a medical officer, a sanitary engineer, and a malariologist, arrived in Ankara at the end of March 1951. In cooperation with the Turkish Government and the Ministry of Health, plans were developed for a large-scale malaria control program.

During the past 5 years, Turkey through its own program has reduced the number of malaria cases by half, from 2.5 million to 1.2 million annually. Locally manufactured DDT was used, the supply increasing from 18 tons of technical DDT in 1947 to a high of 115 tons in 1950.

Two mobile units have been organized to conduct a health demonstration and education program in various parts of the country.

Education and Training

During the year, 523 health workers from all parts of the world were assisted by the Public Health Service in connection with their training or other official visits in the United States. Of these, 290 were fellows from 50 countries, sponsored by various United States and international agencies. Their study programs and field training assignments were planned and administered by the Public Health Service. Most of these fellowships were for 1 year or longer.

The 233 visitors from 54 countries were here for shorter periods and were sponsored by their own governments, private organizations, or international agencies.

REGIONAL TRAINING IN BEIRUT

To serve the needs of the Near East for training in public health, agriculture, public administration, statistics, and other fields, the TCA established a regional training center at the American University, Beirut, Lebanon. Since April 1951, a medical director of the Public Health Service has been on assignment as consultant for the University and the Near East countries. It is hoped that the American University in Beirut will be the first of several regional training cen-

ters to serve the need for producing rapidly large numbers of technical experts without requiring travel to the United States or other remote places for prolonged training.

AFFILIATION PROGRAM

Early in the year, a plan was developed for the affiliation of medical schools in various Southeast Asia countries with United States schools of medicine. This plan will implement the concept of training public health and medical personnel as near to the home field as possible. The first medical school to adopt this proposal was the Washington University College of Medicine, St. Louis, Mo. The school has contracted with ECA to send a staff of 10 medical and nursing instructors to the two medical schools of Thailand in Bangkok.

The World Health Organization

The Fourth World Health Assembly, held at Geneva, Switzerland, from May 7 through May 25, 1951, was attended by delegates from 70 countries and by observers from 20 international organizations. One of its outstanding accomplishments was the adoption of new sanitary regulations relating to international traffic. The new WHO Regulations, which will go into effect October 1, 1952, will bring virtually the entire world—except for the Communist bloc of nations—under a single set of rules for preventing the international spread of epidemic disease.

Among other notable WHO achievements during its 3 years of existence are the standardization of biological products and the development of an International Pharmacopoeia. The International Pharmacopoeia, published in 1951, makes it possible to procure drugs made to uniform strength in any part of the world. The Expert Committee on Standardization has adopted new international standards for penicillin, vitamin E, and heroin. Through its Expert Committee on Habit-forming Drugs, WHO is making a significant contribution to the work of agencies dealing with a problem of growing concern—the international traffic in these drugs.

The new International List of Causes of Death, adopted in 1950, will bring the nations of the world closer to comparable vital statistics than ever before. WHO's Epidemiologic Intelligence Service has also been a powerful influence on the improvement of disease reporting.

In the coming year, WHO will train public health workers and carry out demonstration projects in such fields as malaria, tuberculosis, venereal disease, other infectious diseases, nutrition, maternal and child health, and sanitation. With extensive cooperation from the

United Nations International Children's Emergency Fund, services in these and other fields will be rendered in 1952 to about 60 countries and some territories.

WORLD HEALTH BUDGET

To accomplish these and many other aims, WHO will operate for the first time a coordinated program on a world-wide basis, irrespective of the source of funds. Activities will be financed from WHO's own regular budget, from the United Nations fund for Technical Assistance for Economic Development, and from the United Nations International Children's Emergency Fund.

The 1952 working budget adopted by the Fourth World Health Assembly will be about 25 percent larger than that for 1951. The amount approved by the assembly is \$7,700,000 as compared with \$6,300,000 in 1951. The failure of the Communist countries to participate, plus delayed payments from certain other countries, will automatically reduce the \$7,700,000 budget by about \$1,000,000. However, WHO is to receive about 22 percent of the funds available through the United Nations, and UNICEF is expected to spend about \$5,000,000 for health programs under WHO's technical guidance.

The Fourth World Health Assembly reduced the proportion of the United States contribution for the third consecutive year. Our share is now one-third of the WHO regular budget—the highest that any nation will ever be expected to pay. The sum is relatively small—\$2,800,000—by comparison with the costs of disease throughout the world.

Table 1.—*Commissioned officers and civil service personnel as of June 30, 1951*

	Full-time					Part-time (civilian)			
	Grand total full-time	Commissioned officers	Civilian			Total part-time	When actually employed	Without compensation	Other
			Total	Washington metropolitan area	States	Outside United States			
Public Health Service.....	¹ 15,537	² 2,425	13,112	3,702	9,150	260	4,899	¹ 319	³ 4,273
Office of the Surgeon General	786	157	629	585	32	12	25	20	4
Immediate Office of the Surgeon General.....	52	9	43	43			2	1	
Division of Civilian Health Requirements.....	11	1	10	10			1	1	
Division of Commissioned Officers.....	75	14	61	61					1
Division of Finance.....	146		146	146			1		
Division of International Health Relations.....	175	119	56	44		12	11	10	1
Division of Management Services.....	99		99	99			5	4	1
Division of Personnel.....	67	1	66	66			1	1	
Division of Public Health Methods.....	83	3	80	74	6		4	3	1
Division of Supply.....	59	4	55	38	17				
Details to other agencies.....	19	6	13	4	9		1		1
Bureau of Medical Services	8,529	1,183	7,346	388	6,784	174	556	179	164
Immediate Office of the Chief.....	15	6	9	7	2				
Division of Administrative Management.....	99	2	97	97					
Division of Dental Resources.....	19	7	12	9	3				
Division of Foreign Quarantine.....	593	50	543	22	429	92	94	2	82
Division of Hospital Facilities.....	107	15	92	58	34		1	1	
Division of Hospitals.....	7,285	858	6,427	161	6,184	82	442	173	71
Division of Medical and Hospital Resources.....	24	8	16	16					198
Division of Nursing Resources.....	17	6	11	11			3	3	
Details to other agencies.....	370	231	139	7	132		16		11

Bureau of State Services.....	3,759	744	3,015	948	1,993	74	4,211	69	4,086	56
Immediate Office of the Chief.....	27	10	17	16	1		9		9	
Division of Administrative Management.....	74		74	74			1		1	
Division of Chronic Disease and Tuberculosis.....	478	110	368	302	62	4	16	7	7	2
Communicable Disease Center.....	1,287	226	1,061		1,045	16	109		82	27
Division of Dental Public Health.....	91	41	50	19	28	3	7	1	5	1
Division of Engineering Resources.....	31	14	17	16	1					
Environmental Health Center.....	206	48	158		158		9	7	1	1
Division of Industrial Hygiene.....	95	41	54	26	28					
Division of Public Health Education.....	30	4	26	22	4					
Division of Public Health Nursing.....	28	25	3	3						
Division of Sanitation.....	101	65	36	20	16					
Division of State Grants.....	64	12	52	52						
Division of Venereal Disease.....	533	72	461	137	317	7	60	16	21	23
National Office of Vital Statistics.....	208		208	204	1	3	3,990	36	2,954	
Division of Water Pollution Control.....	116	40	76	33	43					
Regional Offices, Alaska.....	390	36	354	24	289	41	10	2	6	2
National Institutes of Health.....	2,463	341	2,122	1,781	341		107	51	22	34
Immediate Office of the Director.....	9	4	5	5			3	3		
Office of the Director.....	656	5	651	647	4		6		1	5
National Institute of Arthritis and Metabolic Disease.....	280	60	220	218	2		5		2	3
National Microbiological Institute.....	445	68	377	195	182		5	2	1	2
National Cancer Institute.....	528	72	456	398	58		17	4	10	3
National Heart Institute.....	222	64	158	105	53		11	6	1	4
National Institute of Dental Research.....	48	15	33	26	7		13	11		2
National Institute of Mental Health.....	165	51	114	82	32		42	25	6	11
Division of Research Grants.....	110	2	108	105	3		5		1	4

¹ Excludes those part-time employees in nonpay status as of June 30, 1951.

² Includes 1,263 Regular officers and 1,162 Reserve officers.

³ Includes 3,954 collaborating epidemiologists and special agents.

Table 2.—Statement of appropriations, authorizations, obligations, and balances for the fiscal year 1951

(In thousands)

Appropriations	Funds available for obligation				Total funds available	Amounts obligated	Balances
	Appropriations and authorizations (less reserves) ¹	Net transfers between appropriations	Repayments for services	Prior year unobligated balances			
Total.....	\$229,441	—\$928	\$10,080	\$93,052	\$331,645	\$290,882	\$40,763
Commissioned officers, pay, etc.....	1,790	-----	666	-----	2,456	2,351	105
Foreign quarantine service.....	3,004	-----	1	-----	3,005	2,979	26
Control of tuberculosis.....	9,400	-----	-----	-----	9,400	9,395	5
Control of venereal diseases.....	12,864	-----	32	-----	12,896	12,868	28
Assistance to States, general.....	16,084	-----	15	-----	16,099	16,079	20
Control of communicable diseases.....	6,165	50	110	-----	6,325	6,289	36
Hospitals and medical care.....	28,974	-----	6,957	-----	35,931	35,882	49
Operating expenses, National Institutes of Health.....	14,314	—200	246	-----	14,360	14,252	108
Operating expenses, National Cancer Institute.....	15,086	-----	-----	-----	15,086	14,612	474
Mental health activities.....	7,130	-----	18	-----	7,148	6,986	162
Employee health service programs.....	50	-----	269	-----	319	308	11
Salaries and expenses.....	2,808	-----	70	-----	2,938	2,901	37
Disease and sanitation investigations and control, Territory of Alaska.....	1,234	-----	-----	-----	1,234	1,232	2
Operating expenses, National Heart Institute.....	8,850	-----	-----	-----	8,850	8,494	356
Operating expenses, dental health activities.....	1,955	-----	-----	-----	1,955	1,942	13
Engineering, sanitation, and industrial hygiene.....	3,670	-----	13	-----	3,683	3,660	23
Salaries and expenses, hospital construction services.....	1,257	-----	-----	-----	1,257	1,248	9
Working capital fund, narcotic hospitals.....	-----	-----	313	67	380	380	-----
Service and supply fund.....	-----	-----	1,159	205	1,364	1,364	-----
Grants for research and training projects.....	-----	-----	-----	2	2	2	29
Construction of research facilities.....	4,748	—623	-----	556	4,681	589	4,092
Payments to States for surveys and programs for hospital construction.....	-----	-----	-----	100	100	100	-----
Grants for hospital construction.....	85,000	-----	-----	91,881	176,881	142,744	34,137
Grants, water pollution control.....	1,000	-----	-----	5	1,005	967	38
Research facilities, National Institute of Dental Research.....	-----	-----	-----	1	1	1	-----
Buildings and facilities, Cincinnati, Ohio.....	3,800	—3,800	-----	70	70	70	-----
Operation of commissaries, Division of Mental Hygiene.....	198	-----	8	15	221	209	12
Payments, Armed Forces Leave Act of 1946.....	-----	600	-----	-----	600	598	2
Defense, public works, community facilities, General Services Administration.....	-----	-----	-----	41	41	-----	41
Mutual defense assistance, emergency fund, general area of China, Executive Office of the President.....	-----	-----	-----	34	34	34	-----
Salaries and expenses, Bureau of Prisons.....	-----	1,104	-----	-----	1,104	1,097	7
Salaries and expenses, Philippine rehabilitation, Department of State.....	-----	1	14	-----	15	14	1
Salaries and expenses, American Sections, International Commissions.....	-----	55	-----	-----	55	55	-----
Expenses, Displaced Persons Commission.....	-----	450	-----	-----	450	194	256
Maritime training fund, Department of Commerce.....	-----	77	-----	-----	77	76	1
Expenses, Economic Cooperation Administration.....	-----	197	97	-----	294	254	40
Expenses, China aid, Economic Cooperation Administration.....	-----	1,161	-----	-----	1,161	557	604
Working fund, Federal Security Agency.....	-----	-----	92	75	167	128	39

¹ Reserves pursuant to sec. 1214 of the General Appropriation Act, 1951.² Cancellation of prior year obligations

Table 3.—Payments to States, Fiscal Year 1951

[In thousands]

State	Vener- disease control	Tuber- culosis control	General health	Mental- health activ- ities	Heart- disease control	Cancer control	Indus- trial waste studies	Hos- pital survey and plan- ning	Hos- pital con- struc- tion
Total	¹ \$9, 883	\$6, 350	² \$14, 234	\$3, 074	\$1, 359	\$3, 027	³ \$867	\$108	\$108, 096
Alabama	413	144	389	72	55	77	20	-----	6, 624
Arizona	60	54	96	13	4	12	10	-----	752
Arkansas	206	105	288	42	16	53	16	-----	3, 280
California	221	310	669	193	83	189	28	24	2, 457
Colorado	43	59	127	26	23	33	11	-----	1, 304
Connecticut	30	96	133	38	27	41	12	2	824
Delaware	21	26	22	21	9	6	9	-----	265
District of Columbia	176	57	58	22	18	16	10	-----	371
Florida	439	150	239	56	35	55	15	-----	2, 875
Georgia	1, 171	209	390	81	55	79	20	7	4, 185
Idaho	30	20	83	22	17	20	10	-----	519
Illinois	429	298	560	104	46	173	25	2	1, 542
Indiana	104	134	324	87	43	82	18	-----	1, 650
Iowa	56	59	227	53	12	55	15	3	2, 149
Kansas	48	87	192	44	31	49	13	4	958
Kentucky	344	178	378	65	50	80	19	4	3, 738
Louisiana	504	129	315	56	11	60	17	-----	2, 273
Maine	22	34	90	14	11	22	11	-----	1, 778
Maryland	196	140	161	45	30	44	13	-----	923
Massachusetts	55	219	344	95	38	108	31	11	2, 834
Michigan	172	228	480	127	60	117	22	4	4, 569
Minnesota	50	92	284	61	37	57	20	6	1, 847
Mississippi	649	158	360	51	28	70	17	-----	4, 662
Missouri	210	140	361	60	45	91	19	-----	2, 391
Montana	19	25	66	22	9	15	9	3	482
Nebraska	40	41	106	24	8	23	11	1	798
Nevada	19	11	40	13	8	9	8	-----	48
New Hampshire	11	17	55	20	4	-----	10	-----	697
New Jersey	112	147	326	98	45	87	18	1	1, 997
New Mexico	126	44	92	19	18	20	10	-----	498
New York	255	448	866	259	74	231	35	-----	5, 778
North Carolina	550	202	485	43	31	28	23	7	4, 682
North Dakota	24	49	76	22	17	19	9	-----	444
Ohio	362	279	592	166	72	166	37	6	3, 558
Oklahoma	171	110	273	56	31	56	16	2	3, 408
Oregon	42	65	164	36	2	27	12	2	1, 291
Pennsylvania	290	294	769	155	-----	154	34	-----	5, 536
Rhode Island	16	38	53	22	4	12	10	-----	611
South Carolina	413	151	282	52	43	55	16	-----	2, 651
South Dakota	21	28	66	13	6	16	10	-----	443
Tennessee	201	173	368	71	34	53	19	-----	3, 026
Texas	729	187	687	155	27	145	44	11	7, 522
Utah	23	24	91	22	1	8	10	1	663
Vermont	7	21	37	13	-----	12	9	-----	482
Virginia	228	203	314	74	18	51	17	3	3, 629
Washington	47	88	191	51	31	49	23	-----	805
West Virginia	187	90	215	45	21	37	14	-----	781
Wisconsin	40	109	256	63	16	71	16	-----	1, 544
Wyoming	15	12	47	2	-----	9	9	1	227
Alaska	18	89	² 746	14	12	7	9	-----	47
Hawaii	20	64	54	22	17	12	9	-----	332
Puerto Rico	218	202	340	52	23	54	19	3	1, 330
Virgin Islands	30	18	7	22	3	2	-----	-----	16

¹ Includes \$3,629,347 in cash and \$765,028 in services and supplies for rapid treatment facilities and special venereal-disease projects. Does not include expenditures of federally operated centers in Hot Springs, Ark. and St. Louis, Mo.

² Includes payment of \$694,000 from special appropriation for Alaska disease and sanitation investigation and control.

³ Excludes \$88,908, paid to 7 interstate agencies.

Office of Education

Introduction

FISCAL 1951 was a year of armed conflict in Korea. It began a week or so after the invasion of South Korea; it ended a week or so after the United Nations broadcast by the Soviet delegate, Jacob Malik, which set in motion the truce negotiations between the United Nations command and that of Communist China and North Korea.

The impact of the Korean conflict on the American people was far-reaching, as the Nation moved to mobilize its resources for defense. Selective Service was reorganized to provide for an army, navy, and air force of 3.5 million, $2\frac{1}{3}$ times the previous strength of our regular armed forces. The wheels of industry started turning for the production of vast quantities of planes, guns, tanks, and other war matériel. Shortages of raw materials—especially steel, copper, and aluminum—imposed sharp limitations on nondefense construction and industrial activity, and the sudden shift to a defense economy set off a spiral of inflation. Prices of consumer goods rose rapidly, and before any form of controls could be made effective the cost of living had increased by 9 percent.

Education quickly felt the effect of the accelerating program for defense mobilization. The diversion to defense industries of large quantities of basic materials in short supply posed a major threat to the vitally important school-building construction program which had been gathering momentum since the end of World War II. With classroom facilities still wholly inadequate to take care of the rapidly increasing school population, this was, in most communities, a matter of grave concern. The program was further threatened during the year by the inflationary rise in construction costs.

The influx of workers and their families into areas where defense production activities were to a large extent concentrated created another and exceedingly trying problem. In nearly 1,000 communities local school authorities were faced with the task of providing adequate classroom facilities for a suddenly expanded school population.

Rising prices also brought to the fore again, in sharp focus, the whole problem of teachers' salaries. New cost-of-living adjustments came up for discussion before hundreds of school boards. Again, as in World War II, teachers began to leave the profession in increasing numbers to take better paid jobs elsewhere.

Among colleges and universities, the anticipation of a sharp drop in enrollments for the succeeding academic year presented equally grave problems. With tens of thousands of young men of college age going into uniform, fears arose that it would be necessary, in many cases, to make deep slashes in the teaching staffs. Colleges were concerned with the extent to which specially qualified students would be permitted to postpone their military service until they had completed their college education.

Beyond all this, the tensions engendered by the international crisis were reflected in many ways in the classroom. And the sense that the crisis might last for an indeterminate number of years hung heavy over the entire educational world.

In the meantime, the main business of education went forward. Elementary and secondary school enrollments, public and private, set a new record of 29,828,000. College and university enrollments, however, declined slightly from the previous year to a level of about 2,500,000, chiefly because of the smaller number of students entering colleges under the GI scholarships.

The acute shortage of teachers, particularly in the elementary schools, continued to threaten the proper functioning of our public school system. And the schoolhouse shortage became increasingly critical as the rate of new schoolhouse construction failed to provide adequately for the tidal-wave of children bearing down on our schools.

Education and Mobilization for Defense

In meeting the impact of the problems, created by the international emergency throughout the fiscal year 1951, the Office of Education played an important part. The responsibility resting on the Office's leadership in the field of education was clearly recognized by the National Security Resources Board in a statement designating it as the agency for all educational planning related to the defense effort.

"In the field of education," the statement read, "the National Security Resources Board and the President are looking to the Federal

Security Agency and its Office of Education as the focal point within the Federal Government where information regarding the educational and training needs will be gathered and distributed to the schools and institutions of higher education so that they may make their maximum contribution to the defense effort."

This was interpreted by the Office as involving two levels of related activity: the responsibility (a) to explore the total educational resources of the Nation and to help channel them, wherever possible, into the immediate defense effort; and (b) to work toward safeguarding and improving present educational standards to the end that education may continue to make its basic contribution to the strength and well-being of the Nation during the critical years which lie ahead.

In following through on these responsibilities the Office laid down 4 broad programs with some 27 separate staff assignments for exploratory study and recommendation. The general headings under which these programs were set in motion were: (1) Manpower, with special reference to Selective Service policies and the training of defense workers; (2) School construction and the allocation of materials in short supply; (3) Educational facilities in federally affected areas and the administering of Federal aid; and (4) a Defense Information Service to school authorities and educational institutions.

DEFENSE INFORMATION BULLETINS

In December 1950 the Office began a series of bulletins designed to provide information and interpret developments in the over-all defense mobilization programs as they related to education. By June 30 these bulletins, published as need arose, had reached a total of 47. The majority were concerned with the regulations issued by the Office of Defense Mobilization concerning the allocations of materials in short supply and those issued by Selective Service on the drafting of college students. These bulletins were mailed to more than 2,600 school and college officials throughout the country. The response was uniformly good, and the Office received wide commendation for the performance of an essential service to education in a time of national crisis. In addition, the regular publications of the Office, *SCHOOL LIFE* and *HIGHER EDUCATION*, carried definitive articles on these matters.

CLAIMANT AGENCY FUNCTION UNDER THE NATIONAL PRODUCTION AUTHORITY

Early in the fiscal year it was apparent that, under the pressures of the defense production program, a tightening market would develop in basic materials. There were widespread fears among educators that the requirements of the defense industries would be so over-riding

that those of new schoolhouse construction and maintenance would be virtually disregarded.

These fears were based on the Nation's experience in World War II. During that period all priorities and allocations of basic materials had been handled by the War Production Board. As defense production rose to higher and higher levels, civilian operations not directly related to the war effort found themselves reduced to a fraction of what they required. This was particularly true in the field of education. As a result, there was an almost complete cessation during the war years of new school construction and a sharp drop in ordinary school maintenance and repair.

In justification it may be said that a nation engaged in all-out war—where victory is conceived of as possible within a limited time—can perhaps afford to make sacrifices of this nature. The situation in 1950, however, was vastly different. Here we were concerned not merely with resisting aggression in Korea, but with mobilizing our defense resources for a crisis that might easily last for 10, 15, or even 25 years. Under the circumstances, it was of vital importance not only to plan for the amount of defense production necessary to build our armed forces to the necessary levels, but it was also important to maintain our civilian economy at the highest level possible and to make no needless sacrifices that would weaken the Nation's essential strength.

This thinking was given official sanction as the defense program swung into action. Under the Defense Production Act of 1950, the President was authorized "to allocate material and facilities in such manner, upon such conditions, and to such extent as he shall deem necessary and appropriate to promote the national defense." A substantial part of this authority was delegated to the Secretary of Commerce, who in turn established a National Production Authority within his department.

To carry on its functions, the NPA designated certain departments, commissions, and agencies of the Government as claimant agencies. The primary task of these agencies was to represent the public interest in matters which came under their special jurisdiction. It was their responsibility to provide information on the civilian needs of the country which would be submitted to the Defense Production Administration, the planning agency of the Office of Defense Mobilization. On the basis of this information the DPA would make broad allocations of scarce materials as between the military and civilian parts of the economy and as between major segments of the civilian economy. (Later the NPA was made the operating arm of the DPA and the two authorities came under a single executive head.)

As part of this arrangement, the Federal Security Administrator was designated (Department Order 127, Department of Commerce)

as the official claimant before the NPA in respect to "school and hospital construction other than veterans' hospitals; and the domestic distribution of supplies and equipment needed in the fields of health, education, welfare, recreation, and related activities." Those functions relating to the field of education were, in turn, delegated by the Administrator to the Commissioner of Education.

A working staff was immediately organized by the Commissioner to carry out this assignment. This staff was drawn chiefly from personnel already employed within the Office since only limited funds were available for the operation.

Under Regulation 1, dated September 18, 1950, the National Production Authority established controls over some 100 materials in short supply to prevent the excessive accumulation of inventories. The immediate focus, however, was on the shortages in copper, steel, and aluminum. At the request of the NPA, the Office prepared a full-scale survey of all educational needs of the country—elementary and high schools, colleges, and libraries—in respect to these basic materials over the 1951 and 1952 calendar years. The survey, submitted March 1, covered 278 items of supplies and equipment in the field of new school construction and maintenance, and constituted the basis on which the DPA made its later determinations of the amount of materials in short supply to be set aside for education.

In the meantime, a great number of school authorities were having difficulty in procuring materials and equipment needed for the construction projects already begun. Many of them turned to the Office of Education for help, and in consequence a program of emergency assistance for hardship cases was inaugurated. From February through June some 8,500 requests for assistance were received, and in the great majority of instances the Office, working with the NPA, was able to secure the needed materials. At the suggestion of the Office, a special "set aside" in steel, for the month of June, was made by the NPA to meet hardship cases in the field of education.

The principal beneficiaries under this program were school authorities in small towns and the smaller colleges. The Office did, however, aid many of the larger colleges and universities in securing hard-to-get items of equipment, such as scientific and technical instruments and multiple switch gears. In much of this activity the Office was able to utilize to advantage the services of the field organization of the Federal Security Agency.

So far, the Federal Security Agency and the Office of Education were acting primarily in an advisory capacity to the Defense Production Administration and the NPA. But with the announcement by the DPA of a Controlled Materials Plan to go into effect July 1, 1951, this relationship was substantially altered. Under NPA Delegation 14, the FSA was given definite authority: (1) to issue permits authorizing

the commencement of all construction in the field of its jurisdiction; and (2) to establish construction schedules and allot critical material. In the field of education this authority was exercised by the Office of Education.

During the period when the CMP was in the process of being drawn up, members of the staff of the Federal Security Administration and of the Office of Education, together with representatives of nongovernmental education associations, maintained a close contact with the Defense Production Administration executives. The importance of continuing schoolhouse construction, at least at its current rate, was forcefully argued. Full data were presented covering the tremendous increase in school population expected over the next 10 years and the critical shortage in classrooms following the failure to maintain adequate construction schedules during the depression and war years.

Largely as a result of these efforts, there was reason to believe that education would be given a top priority in the allocation of basic materials with a rating equal to that of the various defense establishments, the Atomic Energy Commission, and certain other important fields of defense operation. Amounts approved for delivery, during the quarter beginning July 1, included 100,000 tons of carbon steel and substantial amounts of brass mill products and aluminum. Compared with education's position in World War II this was a distinct improvement. With a certain amount of steel still available in the free market, these allotments were sufficient to take care of most of the immediate needs of school construction already under way, but they made little provision for projects scheduled to begin construction during the quarter. It was evident that allotments for succeeding quarters would have to be greatly increased if the full requirements of education were to be met.

COLLEGE STUDENTS UNDER SELECTIVE SERVICE

Under the Selective Service Act of 1948, college and university students ordered to report for induction, were permitted to finish their academic year if their work continued to be satisfactory. With a high level of voluntary enlistment for the comparatively small pre-Korean armed forces, relatively few were affected by the draft.

The Korean crisis, however, opened up the whole question of deferment, or postponement of service, for college students under the act. The nub of the question was the extent to which specially qualified students were to be permitted to finish their full college courses before going into the armed services, and on what basis the selection was to be made.

In educational circles there were profound differences of opinion on the matter. Some felt that in a democracy no preference of any sort should be accorded college students; that all young men reach-

ing draft age should be dealt with on the same basis. These views did not coincide with those held by the majority of educators, as evidenced by a poll conducted by the National Education Association of a cross section of college presidents throughout the country. Nor did they coincide with those of Administration officials. Charles E. Wilson, head of the Office of Defense Mobilization, put the matter clearly when he stated that it was important for the armed services to "have the benefit of men trained to serve more effectively than they otherwise would."

"Our potential enemies," Mr. Wilson went on to say, "can marshal enormous manpower resources against us. There is no foreseeable chance that we can match their manpower in terms of sheer numbers. The factors potentially in our favor are our military competence, our technological advantage, and our vast industrial capacity.

"The effectiveness of these three factors depends almost entirely upon the technical, scientific, managerial, and industrial skills of our population which are already in short supply. Success or failure in meeting the forces arrayed against us will depend in large measure upon the intelligence with which we husband these skills and use them to their fullest advantage."

Several proposals, widely differing in content, were set forth by various individuals and educational institutions, and the matter was thoroughly explored at committee hearings of the House and Senate. The law enacted retained the presidential authority to defer college students. Under this authority the new Selective Service regulations permit the postponement of induction into the armed services, over the succeeding school year (1951-52) for students in the following categories:

(a) students or those accepted for admission in certain professional schools (medicine, dentistry, veterinary medicine, osteopathy, and optometry) who are certified by their schools as doing satisfactory work;

(b) full-time graduate students seeking a graduate degree and similarly certified;

(c) students accepted for admission to graduate schools who have satisfactory scholastic standing or can meet certain prescribed tests;

(d) undergraduates accepted for admission to their next year of study who have a comparatively high scholastic standing or who can meet certain qualification tests.

The bill also incorporated the principle of Universal Military Training, with a commission to be appointed to draw up a specific program.

College authorities, of course, were concerned with the determination of the draft age—whether it should be placed at 18 or 19—since this would affect the number of students eligible for induction. On the compromise finally agreed upon, age 18½, studies made by the

Office of Education showed that approximately one-third of all currently enrolled college undergraduates would thus be affected—some 370,000 out of a total male enrollment of 1,059,000. This relatively low proportion was caused by the fact that about 423,000 students were World War II veterans and therefore not subject to the draft and 201,000 were ROTC students. The remainder of the male students were for the most part, 4F's or under draft age.

During May and June, Selective Service tests, administered by the Educational Testing Service of Princeton, N. J., were given at approximately 1,000 examination centers throughout the United States and its Territories. As of June 30, the results of these tests had not been made known.

DEFENSE TRAINING PROGRAMS

During World War II, the schools and colleges of the Nation played a vital role in the training of workers for jobs in defense industry. Under various national defense programs, administered by the Office of Education, more than 13 million persons were given such training. This tremendous effort was credited, in no small way, with breaking the bottle-neck in production of war materials and gave industry the skilled workers it required to build the necessary ships, planes, tanks, and guns. It was carried under three general headings:

1. *The Vocational Training Program for War Production Workers* was operated mainly in the public secondary schools under the State Boards for Vocational Education. During the 5 years from 1940 to 1945, this program enrolled nearly 7½ million persons. Nearly 5 million were workers employed by war industries who received training supplemental to their war employment. The other 2½ million received specialized training prior to their employment in war industries. Of these 7½ million, about 1½ million were women with no previous industrial experience.

2. *The Rural War Production Training Program* was also operated in the secondary schools under the State Boards for Vocational Education. This program had a total enrollment of more than 4 million. About 1½ million of these received training in the operation and maintenance of farm machinery and another 1½ million in food processing and conservation. Something like three-fourths of a million were trained for employment in war industries.

3. *The Engineering Science and Management War Training Program* was operated in some 240 colleges, universities, and technical schools under plans approved by the Office of Education. The job here was to assist in meeting the shortage of engineers, chemists, physicists, and production supervisors in fields essential to national defense. Total enrollments were nearly 1,800,000, and 10 types of

courses were offered, with chief emphasis on electrical engineering, engineering drawing, and industrial engineering.

On September 9, 1950, following the outbreak of the Korean conflict, the President approved a memorandum of the Director of the Bureau of the Budget bearing on the training of defense workers under the general defense mobilization program. This memorandum laid down the principle that the Department of Labor would identify all training needs for defense activities and that the Federal Security Agency, through the Office of Education, would "develop plans and programs for the education and training, in groups or classes under organized auspices, of personnel needed for work in occupations essential to the national defense."

In December 1950, at the request of the National Security Resources Board, the Office undertook a survey of the plant research and instructional facilities of some 1,900 colleges and universities. The task was to assemble, analyze, and classify all pertinent information, and make it available to the Department of Defense and other Federal agencies requesting it. By June 30, 1951, more than 1,100 completed reports had been received. This was the first time that such comprehensive information had been assembled covering college and university facilities. The program was designed to operate on a current basis and, by the end of the year, was already proving useful to the defense efforts of 21 different units of the Federal Government.

Along with these activities, a Nation-wide program for the training of defense workers was drawn up covering two types of training to meet defense production requirements:

1. *Training for immediate production needs*—Introductory training on the job for new workers, refresher training for those returning to the labor market, and instruction required as the result of shifts from nondefense industries or upgrading of workers in the plant.

2. *Training for longer range needs*—For the skilled trades and for scientific, technical, and defense pursuits.

Defense training of less-than-college grade was to be carried on, under the direction of the Office of Education, by State Boards for Vocational Education and State and local vocational schools. Defense training of college grade was to be carried on, under the direction of the Office, by institutions of higher education.

As of June 30, no specific funds were available for these programs. Many high schools undertook as much defense training of workers as they could with the money at their command, but the effort touched only the edges of the problem.

Without question the need for training is imperative. Defense Mobilizer Charles E. Wilson has said that in order to meet our defense production goals the part of the labor force engaged directly or in-

directly in defense production will have to be increased in 1951 by 3 to 4 million workers. In this connection, it should be pointed out that the employment situation is radically different from what it was in 1940. At that time there was a large mass of unemployed workers eager to undergo specific training that would enable them to get defense jobs. Today, we have nearly full employment. Most of our workers are earning comparatively good wages in comparatively stable jobs. There is practically no surplus of young people on our farms. Any sharp increase in the labor force to meet our defense needs will probably require the training of a larger number of women than in World War II. It will be necessary to put greater emphasis on the training of the physically handicapped and the 4F's. And we shall have to draw heavily on the services of the older and retired workers.

Over the next several years, at least, our schools and colleges can look forward to shouldering a heavy load in this important area of the Nation's defense program.

ASSISTANCE IN FEDERALLY AFFECTED AREAS

The rapid stepping-up of defense activities brought heavy pressure on the educational facilities in communities located near military installations and defense production projects. Military camps and bases were being reactivated or expanded to train an increasingly large number of men inducted into the Armed Forces. Shipyards were reopening in a number of areas and expanding production in others. Airplane production went into high gear, and factories producing all manner of war matériel were also expanding their rate of production. These pressures were felt even more heavily in connection with the Paducah (Ky.), and Savannah River (Ga.) projects established by the Atomic Energy Commission.

As a result of all this, workers by the tens of thousands with their families had moved into these communities to take defense jobs, and it was evident that the pattern of congested areas, so familiar during World War II, was being repeated. This was especially true of school facilities for workers' children. All the worst aspects of the Nationwide schoolhouse shortage were intensified—overcrowded classrooms; use of fire-hazardous buildings, basements, and empty stores, together with recourse to half-day sessions.

Beyond that, the heavy influx of military personnel into military installations and bases—civilian workers as well as men in uniform—created even more imperative problems, since in most instances there were few school facilities for the children of families moving into these areas. Many of these children were sent to schools in the surrounding communities, thus swamping their already overcrowded classrooms.

In September 1950, legislation was enacted by the Congress (title II of Public Law 815) providing for various forms of Federal aid for new schoolhouse construction in communities struggling with these problems. About the same time, additional legislation was enacted (Public Law 874) to provide Federal assistance to these communities for current operating expense. In the fiscal year 1951, the sum of \$96.5 million was appropriated or authorized for Public Law 815 and \$23 million was appropriated for Public Law 874.¹ In both instances, the amount of Federal payments was determined primarily on the basis of the Federal impact in terms of federally affected children involved and property exempt from taxation.

By the end of the fiscal year, 865 applications for new school construction under Public Law 815 had been received, involving an estimated 540,000 children. The full amount to which the communities were entitled came to some \$340 million. Since this was far in excess of the amount appropriated by the Congress, the Commissioner of Education was forced to determine the relative urgency of need for school facilities. The \$96.5 million available was apportioned among those applicants whose claims were adjudged to be the most pressing. Preliminary allocations, as of June 30, showed that \$88 million had been reserved for 290 specific projects in 241 school districts. Of these projects, 228 involving a little more than \$74,000,000 served specific defense activities; 8 requiring \$899,000 were for non-defense activities such as reclamation and flood-control activities and Indian reservations; and a little more than \$13,000,000 was reserved for 54 projects in areas still suffering from the impact caused during World War II. Many of the last group still had children living in federally owned nontaxable housing projects built in wartime.

Under Public Law 874, applications for Federal aid to meet current school expenses were received from 1,210 qualified applicants with certified entitlement totaling approximately \$29 million.

NATIONAL SCIENTIFIC REGISTER

In the summer of 1950, as part of the over-all manpower program, the National Scientific Register was established in the Office of Education as a special project of the National Security Resources Board. Its primary responsibility is to develop a selective, analytical inventory of the Nation's specially trained scientists and technologists in the physical, natural, and engineering sciences. It also develops studies relating to various phases of the Nation's scientific manpower

¹ A supplemental appropriation in the amount of \$5.7 million was made available after the close of Fiscal '51 to cover requirements of Public Law 874 during the fiscal year 1951.

resources and provides the machinery necessary for the full utilization of scientific skills in the event of total mobilization. These data, along with the studies and reports based on them, will be used by Government agencies and other institutions concerned with mobilization planning, training, military deferment, scholarship, and research programs.

CIVIL DEFENSE

During the year, through its Division of Vocational Education, the Office worked with the Civil Defense Administration in developing training plans needed to prepare people for duty in various aspects of civil defense. It also maintained continuing liaison with the CDA in its general educational work. In addition, the Office cooperated with the Red Cross in preparing suggestions for the establishment of courses for the training of teachers in home nursing.

The foregoing are the chief activities of the Office of Education growing out of the international emergency. But in a variety of other ways the day-by-day work of the Office felt the impact of the crisis as the Nation mobilized for defense.

Reorganization of the Office of Education

In February, the administrative structure of the Office of Education was reorganized. Among other measures taken, the number of operating divisions was reduced from eight to three, and certain specific responsibilities, previously more-or-less scattered throughout the various divisions, were brought together at the staff level to permit more effective coordination.

This "streamlining" process had as its objective more than just an increased efficiency of operation as such. Its chief purpose was to enable the Office to move more directly and more boldly toward carrying out its primary responsibilities in the field of American education.

At the time it was first established in 1867, the functions of the Office had been broadly laid down as involving "research into educational matters, the dissemination of information, and the promotion of education." From time to time, however, various administrative functions had been delegated to it. The Office, for instance, was given charge of the allotment of Federal funds to the States for the land-grant colleges. It organized and administered for more than 40 years, the famous "Reindeer Service" to provide education for the native population of Alaska. From 1932 to 1943 it administered the Federal-State program of vocational rehabilitation. In 1933, it was given responsibility for administering the Nation-wide system of vocational training in the public schools. And during World War II, as

previously stated, it directed a vitally important program for the training of war workers and also of engineers and scientists needed for the war effort.

As an arm of the Government, administering the Federal interest in various aspects of education, it was acknowledged that the Office had been highly successful and had served an exceedingly useful purpose. But in terms of its fundamental purposes as originally outlined, its record, according to many of its critics, had been less impressive. Basic research in education had not been actively advanced; it had tended to be limited to the compilation of statistical data. The dissemination of information, for this reason, had also tended to be limited in scope. And promotion of education—in other words, the function of leadership in the field—had been caught in the shallows of advisory and consultative services.

With these ideas in mind, during April of the previous fiscal year, the Office had engaged the Public Administration Service of Chicago to make a thorough-going survey of its administrative functions and activities. The intent was to secure an objective study of the degree to which the Office was meeting its primary responsibilities and of measures that could be taken to strengthen its operation.

The survey was financed through money obtained from the President's fund on management improvement. The survey itself was directed by Francis S. Chase, professor of educational administration at the University of Chicago, and the report was completed in October of the year under review.

In evaluating the work of the Office, the report sharply scored its failure, over the past years, to focus attention on the most pressing educational problems. To a large extent, it found, the energies of the Office were dissipated in scatter-gun projects. There was "a prodigious amount of activity, and the production of a large number of studies of interest to segments of the educational clientele of the Office, but of limited value in terms of major problems confronting American education."

This scatter-gun approach was largely, the report stated, the result of the Office's organization and staffing pattern. The operating divisions were for the most part manned by specialists primarily concerned with their own field of interest who, for all practical purposes, made their own selection of projects to be initiated. In addition, a considerable number of more-or-less unrelated studies were undertaken at the request of educational groups outside the Office. As a result, according to the report, what was obviously a heavy year's work showed little evidence of basic planning or direction.

Furthermore, the report stated, a large part of the time and energy of staff personnel was absorbed in correspondence and in providing

consultative services to school authorities on their own specialized subjects. These functions, important as they were, tended further to fragmentize the activities of the Office. What was needed, the report insisted, was an organization through which the Office could effectively make use of its full resources to deal with the over-all problems of education and to swim vigorously in its main current. There was increasing need for high-level research—either within the Office or under its direct sponsorship—which should concentrate on matters affecting the structure and quality of American education as a whole. The chief effort of the Office should be directed toward a better anticipation and speedier identification of major educational problems and the development of means to meet and resolve these problems.

As a necessary step toward the achievement of these objectives, the report recommended that the activities of the Office should follow the natural pattern of American educational needs and be directed through three main channels: a Division of State and Local School Systems, a Division of Vocational Education, and a Division of Higher Education. These recommendations, together with other suggestions looking toward better administration, were largely incorporated in the reorganization plan which was put into effect during February.

Under the new plan each division, headed by an assistant commissioner, in close collaboration with the other divisions and with the newly established Program Development and Coordination Branch in the Commissioner's Office, undertakes all programing and operation within the area of its responsibility. It is thus able to concentrate on those matters, from the earliest possible stage of their development, which contribute most vitally to the continued progress of American education. Moreover, a tighter organization makes it easier to establish task forces on certain program assignments drawn from the staff resources of the entire Office. And top-level review in the Commissioner's Office of all divisional programing and operation serves to coordinate the efforts of the entire Office.

The Office believes that its administrative reorganization will clear the way for a closer realization of its basic objectives. What is imperative at the present time is effective leadership by the Federal Government in the general field of education. Such leadership in no sense implies Federal control or anything even remotely pointing in that direction; the operation and control of our public schools should, and must, continue to be the responsibility of State and local governments. It does, however, imply a Federal agency actively concerned with major trends in education and their relation to social and economic developments both at home and abroad. The Office should be capable of originating broad policies within the framework of the national

interest, and of interpreting these policies to the States and local communities at the operating level.

Moreover, there is every evidence that truly dynamic leadership of this nature will be welcomed by our schools and colleges. A large number of the problems which State and local authorities must cope with cut across geographical lines and must be dealt with in national terms. These authorities are looking more and more to unified leadership for help in keeping their own State and local programs in proper focus. This is especially true as the Nation enters what may prove to be the most critical period of its entire existence. Such leadership would also provide a central rallying point for the various organizations—both lay and professional—which are making many sound and substantive contributions to the advancement of education throughout the country.

Focal Points for Action

The long-run challenge to the Nation which the international crisis presents is dealt with below. The immediate crisis, however, has brought to the stage of even greater importance some of the most pressing problems which educators were grappling with before the outbreak of the Korean conflict. More than ever, if we are to come safely through the long period of stress that lies ahead, we must face squarely the need for action—and action *now*—looking toward the effective solution of these problems.

THE SCHOOLHOUSE SHORTAGE

Among the most insistent of these problems is the appalling lack of adequate classroom facilities to house our rapidly increasing school population. Public Law 815, passed by the Congress in September 1950 to provide for new schoolhouse construction in federally affected areas (see p. 11), also took cognizance of this over-all construction problem. Under title I, \$3 million was appropriated to finance a State-by-State Nation-wide survey of school facilities. This sum was allotted among the States on the basis of each State's proportionate school-age population, with a State contribution to match the Federal payment. The project will enable the States to "inventory existing facilities, to survey the need of additional facilities in relation to the distribution of school population, to develop State plans for school construction programs, and to study the adequacy of State and local resources available to meet school facilities requirements."

Under the law, the Commissioner of Education serves as coordinator of the survey with authority to approve applications from legally designated State educational agencies and to prescribe the form of the

reports. The Office also provides consultative services to these agencies.

As of June 30, 1951, surveys had been initiated in 39 of the 53 States and Territories, three of them without use of Federal funds. The inventory phase of the reports is scheduled to be completed by December 1, 1951; the target date for the development of 10-year school plant construction programs is set for June 30, 1953.

Such a definitive survey is, of course, long overdue. It should provide a working blueprint of the Nation's need and, it is to be hoped, a further spur toward meeting those needs. Studies conducted by the Office of Education and by other nongovernmental organizations have repeatedly emphasized the critical situation in which the Nation finds itself in respect to its school plant.

Over the past 20 years there has been a tremendous lag in the construction of new elementary and secondary public schools. During the depression, construction was drastically curtailed. In 1934, for instance, the average amount spent per child enrolled, per year, was only \$2.24 compared with the 1922-28 average of \$15.21; and by 1939 the average was still less than \$10. During the war years, owing to the acute shortage in building materials, the situation took an even sharper turn for the worse and all new construction came virtually to a halt. And for the immediate postwar years, the continued shortages plus inflated prices of materials and manpower greatly hindered most communities from entering upon any important school-building program. The result of all these factors is a tremendous backlog of accumulated construction needs.

Furthermore, estimates indicate that one out of five schoolhouses now in use throughout the country should be abandoned or extensively remodeled. Many are fire hazards. Others are health risks lacking normal sanitary conveniences. Thousands are essentially obsolete—unsuited to modern educational needs or demands of administrative efficiency. And the shifting of population during World War II has left many others too remote from the population centers they once served to be utilized economically.

In the meantime, the unprecedented birth rate of the war and post-war years has added enormously to the pressures. These pressures are now being felt particularly in our elementary schools as evidenced by the overcrowded classrooms and makeshift methods of housing in virtually every community. They will shortly be felt in our secondary schools. By 1957-58, it is estimated that the total enrollment, kindergarten through secondary schools, will reach more than 32 million, an increase of 6 million over the public-school enrollment of 1950-51.

Merely to take care of this increase it will be necessary to provide at least 222,000 more classrooms in the next 7 years. And to supply the

backlog of needs for replacements in plant structure and the reorganization of school districts for more effective administration something like 252,000 more will be needed. It will further require about 18,000 classrooms a year to care for normal replacements, or 126,000 rooms over 7 years. This brings the grand total up to about 600,000, which is approximately 50 percent more usable classrooms than the Nation now has.

At 1950 prices, the estimated basic cost of a classroom, including related facilities, was \$27,000. The total cost for the 600,00 classrooms needed over the next 7 years is therefore something like \$16 billion, or an annual investment of more than \$2 billion. Moreover, the general price rise following the outbreak of the Korean conflict has already added about 12 percent to the 1950 costs. Any calculation of costs over the next decade must remain highly speculative.

Before restrictions were placed on critical materials the yearly rate of new construction for public elementary and secondary schools was running to about \$1.3 billion. Even if it were possible to continue at this rate—which the developing shortages in steel and other critical materials make highly unlikely—less than 60 percent of the Nation's 7-year school construction needs would be met. Moreover, the immediate needs of elementary schools are so pressing that even a 100-percent fulfillment of the annual construction schedule would fall far short of providing the number of classrooms required to take care of the children already going to school. It will be seen, therefore, that the situation is rapidly approaching a major national catastrophe.

The Office of Education is acutely aware of the difficulties faced by State and local authorities. It is increasingly evident that local communities can finance only a diminishing part of needed new school-house construction from local bond issues supported by general property taxes. Throughout the country, there is a clear trend toward State aid for new school construction and, by 1950-51, 23 States had established such a policy.

Along with this policy, there is a staunch effort by some of these States to attack the problem of redistricting in order to distribute the tax burden equitably and to make the most effective use of the money spent for new school facilities. In Illinois, for instance, from 1944 to 1950, the number of school districts was reduced from 11,955 to fewer than 4,600; in Arkansas, from 2,179 to 421; and in Idaho from 1,114 to 299. At least 9 other States have made genuine progress in this direction.

Staff members from the Office are also working with State authorities to see that new school planning and construction are blueprinted to meet the changing needs of modern education and to secure the maximum degree of efficient and economical administration.

The essential detailed facts for dealing with the schoolhouse shortage, however, are still to be gathered. The Nation-wide survey of school construction needs, now in progress, should help to pin down these facts in incontrovertible form. Among other things, it should throw a better spotlight upon the variations in the amount and quality of school facilities that exist among the individual States, and the extent to which the resources of each State can be applied to meet these needs without some measure of outside help.

The facts already known, however, urgently pose the question whether the individual States and communities can furnish a really effective solution for the problem as a whole. New York and New Jersey, for instance, according to 1949 figures can support a school budget for current expenditures which averages \$284 and \$273, respectively, per pupil per year. But Arkansas and Mississippi spend a larger proportion of their incomes to support a school budget that averages \$99 and \$77, respectively.

Our most immediate hurdle, however, is the alarming shortage in steel, copper, and aluminum that has developed under the program for defense mobilization. Officially, the needs of education are recognized as on a par with our defense needs, and the requirements for new school construction are to be given top priority. But as previously indicated, allocations for this purpose are already being limited to emergency needs, and there is every likelihood that over the next 2 years the pre-Korean rate of new construction will be sharply curtailed. This slash will only intensify the struggle to meet the crisis which 20 years of neglect have brought to a head.

The same pressures that are being felt in public schools are also being felt in our colleges and universities. In the decade that has elapsed since 1940, the last year of normal college attendance prior to World War II, college enrollment has increased nearly 80 percent, but the physical facilities for instruction and residential housing have increased slightly less than 20 percent. Moreover, the facilities available in 1940 were, in general, inadequate to accommodate the number of students then enrolled.

The greatest increase in physical facilities for colleges that have been provided during the decade came from the Federal Government through the re-use of buildings initially constructed for military purposes incident to World War II. During the war, neither construction materials nor funds were available for extensive educational or other civilian construction projects.

Since the close of the war, according to a survey made by the Division of Higher Education in March 1951, 915 of the 1,858 colleges in the United States have undertaken the construction of one or more permanent buildings. In the aggregate these buildings total 2,640,

at a cost of more than a billion dollars. As the year ends, it is evident that the shortages of critical materials will make it impractical for colleges and universities to construct all of the buildings they have on the drawing board.

THE TEACHER IN AMERICA

During the 1950-51 school year, spiraling consumer prices cut sharply into the real wages of salaried persons—and all teachers work on salary. By January 1951, when the general price and wage controls were put into effect, the cost of living had risen 9 percent over pre-Korean levels—a 9 percent salary cut for every teacher.

Under a ruling by the Wage Stabilization Board, school authorities were given the right to raise teachers' salaries at their own discretion, providing the increase did not exceed the 10 percent over January 1950 levels permitted to industrial workers and other segments of the Nation's labor force. Many communities made an earnest effort to adjust salaries, in some degree, to these rising costs. A full analysis of these increases had not been completed by the end of the fiscal year, but there was every likelihood that the buying power of the 1950-51 salary level for the entire country would show a sharp drop over that of the previous year.

Meanwhile, estimates for 1950-51 show that the average teacher's salary in the United States during that year was \$2,980—a 3.3 percent increase over the preceding 12-month period. The average high-school salary was \$3,375; the elementary school, \$2,765. Geographically, however, there was a wide variation. In the 10 States with the highest per capita income, the estimated average high-school salary was \$4,100; in the 10 with the lowest per capita income the average was \$2,460. Elementary school salaries showed the same variations.

In the elementary schools the teacher shortage continued unabated. In fact, it was further heightened, as already noted, by the tendency on the part of many teachers to abandon their profession in favor of better-paid defense jobs. The same trend was even more evident among high-school teachers, though here the result was less immediately disastrous. Over the past 5 years, a disproportionate number of young people entering the teaching profession had trained for the secondary school (and higher salaried) appointments. In consequence, there was an actual surplus of high-school teachers except in certain fields.

In many States, an attempt was made to provide re-training courses for accredited high-school teachers to enable them to take on elementary school assignments. By the end of the fiscal year, no real evaluation of this experiment had been made, though it showed distinct possibilities.

There is no doubt that the teacher shortage remains one of the most critical problems facing American education. To provide sufficient teachers to take care of the tremendously increased elementary and high-school enrollment over the next 10 years—and to cover ordinary losses through death, resignation, and retirement—it is estimated that we shall have to train annually a minimum of some 130,000 young men and women.

The current year saw a top record of 123,600 normal school or college graduates prepared for elementary or secondary school teaching, but this was still well below the number needed. Moreover, the average for the years 1946-47 to 1950-51 was only 93,380, or less than 72 percent of the minimum number needed on the 10-year schedule of requirements. For elementary schools, the situation was even worse, since the ratio here was only one to three of the number needed. There is grave danger that these ratios will be further reduced under the pressures of defense mobilization and the entry into our armed services of a large number of our potential teachers.

As matters stand now, probably one out of eight of all our elementary classrooms are in the charge of teachers holding only emergency certificates. Though this proportion has declined slightly over the past 5 years, we are still entrusting the education of too many of our children to teachers who cannot qualify for even the lowest certificates issued in our public-school system. Moreover, the preponderance of these certificates are issued to teachers in our rural schools. This represents, in a particularly objectionable form, the sort of social and economic discrimination which persists throughout the entire structure of our public-school system. Because of our failure to provide a sufficient number of qualified teachers, hundreds of thousands of our youngsters are getting markedly inferior classroom instruction, and those tend to be the children in the less-advantaged areas.

Fundamental to this whole problem of the teacher shortage, of course, is the question of salary levels. A study made within the Office, during 1950-51, shows the fluctuations of teacher salaries over the last 40 years in terms of dollars and real wages. The latter have shown an almost steady comparative decline. Compared with the increase of real wages in, say, the medical and legal professions, as well as for industrial workers, they are distinctly subnormal.

Without question, teaching, like the clergy, attracts many young people of idealistic temperament who choose the profession as a form of service. For all, however, it must offer a means of livelihood. But if the living offered is increasingly scaled downward, fewer will choose this means; and more, under economic pressures—especially young men trying to raise families—will abandon their profession in favor of something better calculated to pay grocery bills.

Probably the difficulty lies in the fact that, originally, salary levels were set at the time when, for most young women and some men of a scholastic bent, there were offered few opportunities other than teaching. Today, that is certainly not true. There are a large number of fields which young women with a college education (to concentrate on only one sex) can enter and make a genuine career. Those who enter business with an A. B. and reasonable ability can hope to climb the ladder into some of the better-paying executive or specialist jobs. Only recently, Gimbel's Department Store in New York announced its preference for Ph. D.'s as beginning copy writers in its advertising division!

Meanwhile, teachers' salaries have remained tied to their original base. Such necessary increases as from time to time were granted had, for the most part, to be painfully extracted from the local tax funds. Only rarely have the adjustments been sufficient to meet even the rise in current living costs; on a competitive basis with other opportunities offered to young people they have become notoriously inadequate.

There are other factors, of course, besides the economic. Many teachers are overworked to the point where they "can no longer take it." Others resent the limitations on their personal freedom imposed by the mores of the community. Still others find that the administrative methods of some public-school systems act to curb their natural enthusiasm and zeal for "doing a good job."

A really thoroughgoing piece of research into all phases of the teacher shortage is an imperative. Such a survey should explore all phases of the matter—economic, social, and psychological—and attempt to uncover the root causes. It should also be prepared to make concrete recommendations that would serve to break the continuing "logjam."

Among other things, the survey should inquire into the declining ratio of men teachers in elementary classrooms and the extent to which the decline is affecting the quality of our elementary education. Preliminary studies in the Office of Education show that, during and after each war, this ratio declined sharply and never regained its former level. After World War I, it dropped from the 1913-14 level of more than 17 percent to slightly less than 11 percent. From 1920 to 1940, it remained approximate at this level up to World War II when it was cut almost in half. The present level is about 7 percent. It is a distinctly unhealthy situation for American education to find itself in.

Another field of inquiry in which the Office has already made some exploratory studies is the excessive cost to the educational economy of training teacher replacements. Industry has long been acutely

aware that a high rate of turnover constitutes a heavy charge against labor costs; on any strict accounting basis the cost of "breaking in a new man" adds up to a considerable sum. Similarly, in education we have a situation where the States are spending hundreds of thousands of dollars annually to train teachers who may remain in the profession only a comparatively few years before leaving to take other jobs. Anything which can reduce this turnover would reduce the cost of training replacements. It might also release State funds to be applied to raising the general level of salaries.

As in the matter of providing proper school facilities, especially in the lower-income States, the question of Federal aid to the States is paramount. It is doubtful if anything like an adequate minimum level of teachers' salaries throughout the Nation can be established without this aid. Both the teacher shortage and the schoolhouse shortage expose the primary weakness of our public-school system—the State by State differentials in providing equal educational opportunity for all the children of the Nation. In far too many States, the lack of adequate tax resources is the root cause of the failure to build enough good schools and to pay decent salaries to teachers. As a result, there are literally millions of our young people who, judged by "normal" standards, are receiving an almost negligible amount of education.

Broadly speaking, these are youngsters who come from the lowest income families and for lack of adequate opportunity are fated to live out their lives in the same round of poorly paid jobs that is the lot of their parents. This contention is implicit in the findings of the Sub-Committee on Low-Income Families of the Joint Committee on the Economic Report under the chairmanship of Senator John J. Sparkman of Alabama. These findings show, among other things, the close relationship between low income and sickness and disease, low income and lack of educational opportunity, low income and lack of any basic sense of security. Obviously, no flat statement of cause and effect can be made. Poverty breeds ignorance and disease. But ignorance and disease also breed poverty. Essentially it is a vicious circle—one in which not only individuals and families are caught, but large and important sections of our population. Those States which have the poorest schools, the fewest hospitals, doctors, and public health services, have also the lowest per capita income.

If this circle could once be broken, these families would be released to build toward the standard of living that is enjoyed in other parts of the Nation. Certainly, education offers one of the most direct means to break this circle. And in presenting the arguments for Federal aid to education these factors should not be overlooked. For the arguments are not grounded merely on the right of every Ameri-

can child to secure as much education as he is capable of acquiring, important as these rights are, but are also based on the social and economic necessity of the Nation as a whole.

VOCATIONAL TRAINING

No segment of secondary school curriculums provides education in more "practical" terms than does our program for vocational training. In its growth and development, the Office of Education has been a highly constructive force. Since 1933, when it was first authorized to administer funds appropriated by the Congress for a Federal-State program, the Office has worked in close association with State Boards of Vocational Education throughout the country.

For tens of thousands of youngsters, these courses provide essential training that enables them to qualify for specific jobs at better wages than probably they could otherwise obtain if they were obliged to start without the benefits of any such training. For boys and girls living on farms, it provides not only a working knowledge of the various skills and abilities that are important in the operation of a modern farm and farm home, but also a grounding in modern agricultural methods, chemistry, and marketing methods that will enable them, after graduation, to deal effectively with their own individual problems. For boys entering industry, it helps develop a high degree of mechanical dexterity along with an understanding of the scientific principles of a given craft, both of which are essential to the skilled worker. And for a large number of girls it provides sound training in home economics and in practical nursing.

The tremendous contribution which our vocational training schools made to the training of war workers during World War II has been mentioned above. Without question, they will be called upon to make a further contribution as our defense production mobilization swings into higher gear. These "emergency" responsibilities emphasize the basic importance of the concept of "training for production" which underlies our whole vocational training system. America's industrial strength (which is also the basis of its military strength) rests largely on the skill of its workers and their ability to attain a high level of productive capacity. As productive capacity increases and machines become more complex, a larger and larger number of jobs must be filled with workers possessing special skills. For the most part, the technical requirements of these jobs demand men and women with at least the fundamentals of a high-school education. If, in addition, the job applicant has the specific training which enables him to bypass or shorten the apprentice stage, his value to industry is greater.

Moreover, it is the combination of sound academic and vocational education which often puts the worker most readily in line for pro-

motion within the plant. The world-famous American "know-how," in a sense, rests not merely on top-level engineering ability but on the adaptability of the average workman and his capacity to grasp quickly the essentials of an intricate technical process.

All this is education in its most practical down-to-earth aspects. Certainly, vocational training must become increasingly an area to which our best educational thinking is directed, and one which must be strengthened and developed until it is given the widest possible application.

ADULT EDUCATION

Adult education is another field to which increasing attention must be paid. Many schools provide courses for the older men and women in the community who seek to make up the deficiencies of their earlier education or to enlarge the scope of their present knowledge. Vocational training classes are open to older industrial workers who desire special training to fit them for specific jobs.

But, as yet, we have scarcely begun to explore the full potentiality of this area. Adult education should do more than provide for occupational competencies or make up for earlier deficiencies. In many communities, it has shown that it can become a genuine force in helping adults to understand, and to take an active part in the various aspects of the civic and social life of the community. Moreover, the Conference on Aging, held in August 1950 under the sponsorship of the Federal Security Agency, laid great stress on the importance of adult education. Our vocational training system, it urged, should be expanded to aid workers nearing retirement age to retrain for jobs more nearly suited to their individual physical and mental capacities. And adult education, in general, should be directed toward enabling older people to develop new interests or hobbies that will help them keep mentally alert during their declining years.

LIFE ADJUSTMENT EDUCATION

Another area where effective leadership can be, and should be, applied is in the matter of curricular reorganization in the secondary schools. Most alert school authorities are conscious that some of the subjects taught, and in the way they are taught, offer little of real value in helping prepare a youngster to meet his own individual problems of living in the second half of the twentieth century.

A recent study shows that out of every 100 children entering the fifth grade together, fewer than half graduate from high school. The highest record set was in 1948 with a percentage of 48.1. Furthermore, there is a sharp drop in high-school enrollment, from about 93 percent in the 14-15 age group to approximately 66 percent in the 16-17 age group.

Without question, economic pressures are a large factor in these "drop-outs." In many homes, as soon as a youngster can secure his working papers, he is expected to leave school and contribute to the family income. However, in a great number of instances these economic pressures do not obtain, or at least do not obtain to the same degree. Youngsters, passing the legal age limit for compulsory school attendance drop out either because they are bored and feel "they are not getting anywhere in school," or they are convinced that school can offer them no further specific help toward earning a living and they might as well start "drawing down a pay envelope."

During the past 4 years, Nation-wide interest in this problem has been stimulated by the Office of Education. For the year under review, in cooperation with the Office, the public-school systems in cities of more than 200,000 population are examining the curriculums to discover in what respect they can be altered to hold the interest of the potential "drop-outs." The results, when tabulated and evaluated, should do much to uncover some of the present weaknesses in our approach to secondary education.

These efforts are part of the movement sponsored by the Office of Education along with 12 national education associations to develop the theme of education for life adjustment. The movement was officially launched in 1947 at a national conference on the subject, which attracted wide attention throughout the country.

The aim of this movement is to adapt secondary education more closely to the needs of the 60 percent or so of youngsters entering high school who neither go to college nor enroll in vocational courses. The traditional view of secondary school as preparation for college entrance still restricts the horizons of much of our public-school system. Vocational training is only a part of the answer. What is needed is an *attitude of mind* which attempts to deal with each pupil in terms of his individual capacities and to help him explore his own potentialities.

An important objective is to overcome the feeling of inferiority which the "nonintellectual" student feels in grappling with some of his courses. No youngster, for instance, should be required to take a course in a subject-matter field for which he lacks the necessary ability, and then be marked as a failure, if he has done the best work of which he is capable. He may have other fields of competence. A combination of a part-time job, tied in with class-work design to interpret realistically the world he must live in, would not only sustain his interest but give him a genuine confidence in himself and his native abilities.

Beyond that, to teach a boy or girl to be a good citizen and member of society—to exercise practical judgment and sound common sense in relation to the many and sometimes difficult problems which, as

adults, they will be faced with—is education in its truest and most productive sense. And this is what education for life adjustment aims to accomplish. Such a goal cannot be achieved by rote or by the erection of intellectual standards which have little or no relation to everyday living. But it can be achieved by hard work, patience, and, above all, imagination on the part of the teacher and school authorities.

A program like this does not lend itself to any hard and fast proposals concerning the curriculum. Each school must work out its own problems in terms of the social, economic, and geographical factors involved. During the fiscal year, 1951, the second National Conference on Life Adjustment Education was held with delegates from many parts of the country in enthusiastic attendance. These delegates formally approved the activities carried on to date and requested an extension of them. Currently, some 20 State committees are engaged in stimulating interest in the program and many have reported real progress.

Within the Office of Education it is felt that Life Adjustment Education has a tremendous potentiality for good. There is a further conviction that the basic ideas as applied to high-school problems have implications for elementary schools and for colleges and universities.

THE CHANCE TO GO TO COLLEGE

Undoubtedly, one of the major matters which education must deal with during the coming years is the lack of opportunity afforded the qualified student to secure a college education. With 1,858 institutions of higher learning and an enrollment of some 2,500,000 young men and women, it would seem that we were making definite progress. In a very real sense, of course, we are. Statistics indicate that 38 out of every 100 high-school graduates are currently entering college. And though this ratio of college freshmen to high-school seniors is slightly lower than that of the 30's, the figures show that twice as many youngsters are now graduating from high school as during the depression.

Nevertheless, for every young man or woman who enters college it is estimated that there is another—equally qualified and probably equally anxious to secure a college education—who is denied the opportunity. For the most part, the economic factor is crucial since the great majority of the young people, denied their chance, come from families in the lower-income brackets which cannot finance the steadily mounting costs of a college education.

Racial factors also play a part. In the 17 States where segregation is required, there are only 108 Negro colleges or institutions of higher learning with a total enrollment of 76,500. (This enrollment figure, however, represents a 2,800 percent increase since 1900.) Beyond this,

the factor of economic discrimination operates more heavily against the Negro youngster than the white youngster, since approximately 80 percent of all Negro families (nonwhite) in the South, according to the 1950 census, have an annual income of less than \$2,000, as compared with about 50 percent of all families in the same area.

Geographic discrimination also has a large bearing on the matter. Young people from the lower-income family who live in, or near, the communities where the State universities are located have a better chance than those living at a greater distance. They, at least, can live at home or commute to classes, thus saving the considerable cost which college residence entails in board and lodging.

These forms of discrimination are, of course, palpably unfair in a democracy which professes the ideal of equal educational opportunity for all. But in broad terms of the national interest, they are even more to be deplored. By refusing full educational opportunity to a group equal in number and ability to those who do go to college, we are cutting in half the Nation's supply of potential doctors, engineers, teachers, and all the other scientific and professional people who perform great and useful service to our economy. With a constantly expanding industry there is an increasing demand for technicians with top-level training. Research in all its branches—medical, scientific, sociological—is stymied for lack of a sufficient number of trained research workers. A wide variety of important social services are also in need of college-trained personnel. And how many first-rate teachers and doctors are lost to our communities because they cannot finance their education beyond high school!

Not every college graduate by any means, of course, enters one of these professions or looks for technical training in the industrial field. In these days, however, college training is increasingly regarded as essential for any young man or woman entering business who hopes to make his way up the ladder of success. There are still plenty of opportunities for the smart youngster to "crash the gate" and win through to a substantial income and place in life. But these opportunities are becoming fewer and fewer, as the large corporations and business enterprises depend more and more on college-trained personnel for all responsible jobs.

The Office of Education has urged the provision, by State and Federal grants, of financial aid to able and needy students in higher education. In part, this aid might take the form of self-liquidating loans, guaranteed by the Federal Government. A legislative proposal entitled "The Student Aid Act of 1950" was introduced with the President's approval in both houses of the Eighty-first Congress, but no action was taken, due to the outbreak of the Korean conflict. The proposal is now being revised in the light of the new situation.

The long-term problems in education arising out of the international crisis only emphasize this need for scholarships. The provision of scholarships for qualified students was one of the important elements in the recommendations—made by the Office and concurred in by the Department of Defense—with respect to the deferment of college students under the Selective Service regulations. These recommendations were not finally incorporated in the revisions of the Selective Service Act.

From another angle, the Office has been attacking the problem of lack of opportunity to enter college by urging the establishment of community or junior colleges in every community of any size throughout the country. Such a program would cut down the geographical as well as the other discriminations that now obtain and, generally speaking, provide the same ease of access to higher education that now exists for secondary education. In addition, these community colleges would be designed to meet the continuing educational needs of younger and older adults—needs not normally met by the established colleges and universities.

There are now some 250 public junior colleges (grades 13 and 14) with a total enrollment of around 190,000, and perhaps an equal number of private junior colleges with probably double this enrollment. But, inevitably, most of these colleges have been established in the wealthier communities where need for easy access to education is less pressing. Obviously, we have a long way to go before the geographical barrier to a college education is overcome.

Aside from all the factors already analyzed, there still remains the thesis that the Nation needs as broad a base of an educated and informed citizenry as it can possibly acquire. Surely, one of the best ways to demonstrate democracy in action is to make certain that no American youth—whatever his economic, racial, or geographical status—is denied the opportunity to develop his talents to his own highest possible level.

EDUCATION FOR INTERNATIONAL UNDERSTANDING

The Korean crisis makes all the more urgent the need for our youth to have a better understanding of the world they live in. The ability to relate newspaper headlines to the undercurrents of international relationships should be one of the important objectives of elementary, secondary, and higher education. An understanding of conditions in other countries—how people live, what social and economic problems they face is also an essential. Moreover, it is only as children begin to get a sense of all these things that they can understand the basic conflict which exists between democratic and totalitarian ideologies, and the real significance of America's leadership among the free nations of the world.

Instruction in international understanding, based on the concept of the United Nations, is increasingly becoming a part of modern high-school curriculums. Over the past several years, the Office of Education has worked closely with State boards in developing teaching methods and materials for this instruction. In particular, students are learning about the United Nations Educational, Scientific and Cultural Organization (UNESCO): what this organization is trying to accomplish; what it is accomplishing; and how its basic objectives are related to their future and the welfare of the people of all nations.

From the time UNESCO was first organized, the Office of Education has maintained a vital interest in its work. In November 1951, the Commissioner of Education served as head of a delegation to Montevideo, sponsored by UNESCO and the Organization of American States, to consider means for extending compulsory free schooling and fundamental education programs for adults in the American Republics. An Office expert on literacy was in India on a UNESCO mission in 1951, after having undertaken a similar mission in 1950 in Haiti. *The Treatment of International Agencies in School History Textbooks in the United States*, published in 1950, was the result of a study made by another staff member of the Office of Education, under the sponsorship of the Office, UNESCO, and the American Council on Education. Also, at the request of UNESCO, the Office sponsored a project on literacy education and compiled a set of instructional materials for persons of low literacy levels. This material, published after 2 years of use and testing in classes for illiterates in this country, should prove highly valuable in combating illiteracy in other quarters of the globe.

As part of the effort to promote international understanding, the Office of Education administers a Teacher-Exchange program financed with funds transferred from the Department of State under Public Laws 402 (80th Cong.), and 584 (79th Cong.). During the past year, 127 teachers from Great Britain and other foreign countries taught in American schools, while an equal number of American teachers taught in schools of foreign countries. In addition, 27 Americans were sent abroad for nonexchange positions under Public Law 584.

Under the Cultural Exchange Program for Occupied Areas sponsored by the Departments of State and of the Army, the Office planned and supervised the visits of 257 teachers and educational leaders from Germany, Austria, Japan, and the Ryukyu Islands. It also received and planned itineraries for some 100 other foreign visitors who came to this country to observe American educational methods and institutions. And on behalf of American colleges and universities,

the Office evaluated the credentials and background of some 4,000 foreign students coming to study in this country.

Fellowships under the Buenos Aires Convention were awarded to 32 students from Latin America and another 85 received travel and maintenance grants to study in this country. Fourteen students from the United States received fellowships to study in various educational institutions of the American Republics.

The year 1950-51 saw an expansion of the Teacher-Training Program to include teachers in countries other than Latin America, and grants were made to 201 teachers from 42 countries to study and observe educational methods in the United States. Nine other grants were made under the Point IV program of the State Department.

The Office also undertook to help plan and recruit personnel for various educational projects under the Point IV and Economic Cooperation Administration programs of technical assistance, and 13 men and women were assigned as educational experts in missions established in Iran, Burma, Indonesia, and Thailand.

The value of these various exchange programs to increased international understanding cannot be too highly rated. The hundreds of men and women who are enabled each year, through this means, to come to the United States from foreign countries receive an inestimable opportunity to study American democracy in action—to learn our ways of life, our habits of thought, our methods of going about things. In turn, we discover to what extent their ideas and customs differ from ours, and to what extent they are fundamentally the same. All this helps to dispel prejudice, broaden the understanding, and through the powerful medium of the classroom, establish a genuine bridge between our people and the peoples of other countries.

THE CHALLENGE OF TELEVISION

No invention of recent years offers a greater potentiality than television for the development of new and effective methods of teaching. It is of vital importance that our schools and colleges recognize *now* this potentiality and take steps to see that television broadcasting is fully utilized for educational purposes.

It is only within the past year that any official determination has been made as to the allocation of TV frequencies for educational use. From November 15 to March 1951, public hearings were held before the Federal Communications Commission on the matter. The Commissioner of Education, together with a number of representatives of the educational organizations and public-spirited citizens, was asked to testify at these hearings. He urged strongly that, wherever all available channels in the present very high frequency band have not already been assigned, one should be reserved in each broadcast area for exclusive assignment to educational station applicants; and that

for channels in the ultra high frequency band (none of which had then been assigned) similar protection should be afforded.

The FCC's rulings on these points have been encouraging. Of the 2,000 TV stations—VHF and UHF—which the Commission proposes to authorize, 209 have been tentatively reserved for educational use. However, commercial television whenever affected is strongly opposed to these set-asides, and unless education indicates clearly its intention to make use of these facilities, there will be heavy pressures on the Commission to rescind these assignments.

This is reminiscent of what happened during the early days of radio in the 20's. At that time, certain of the limited number of wavelengths were assigned to schools and colleges. Many institutions which had taken up those licenses solely for public relations purposes soon discovered they had accomplished their original purpose and relinquished them for commercial operation. Only 30 such pioneers are active today. It was not until the advent of frequency modulation, with its wide range of wavelengths, that educational institutions were given the chance to recover part, at least, of their lost opportunities.

This same sort of pressure will inevitably be felt also in television. Unfortunately, education cannot move so swiftly as business and industry to take advantage of new developments in the field of communication. With most schools and colleges, cost will be a crucial factor. In the case of publicly supported institutions, in order to float a successful bond issue for the purpose it will probably be necessary, in many communities, to persuade the taxpayers that the project is an essential in the development of modern educational methods and not merely a "fancy trimming." But the dollars and cents value can usually be demonstrated without much difficulty.

An alternate suggestion is for schools or colleges to operate the proposed stations on a semicommercial basis. Under this plan, advertising revenue from strictly commercial programs would be limited to the amount necessary to cover operational costs, and the station would retain full freedom to allocate whatever time was left for its educational program responsibilities. Iowa State College is already operating such a station with a regular commercial license, the only kind available when it applied in 1948. There is question whether the FCC will permit educational stations to broadcast commercial programs.

On the basis of past experience with commercial radio stations and networks, however, any idea that the educational needs of a school or college can be met satisfactorily by commercial television on a "public service" basis must be flatly discouraged. Unless they can secure actual revenue from each program, neither a network nor a local station

can offer continuing guarantees as to time or coverage. As in radio, sustaining programs of an educational nature are likely to be shifted from hour to hour of the schedule or perhaps abandoned entirely, according to opportunities afforded to sell the time for a commercial program. An established schedule of fixed hours, at the times best calculated to reach the classroom or the home audience, is essential to educational programing. Experience shows that only a station which can control its own programing for this purpose can possibly do an effective job.

In the meantime, the importance of laying plans now and of applying for a license to operate a station on one of the "reserved" channels cannot be too strongly emphasized. New York has already moved to ask the FCC for 11 educational channels within the State and is prepared to pay something like \$3.5 million for the building of transmitters. In all, 28 school systems, 2 teachers colleges, and 1 university are now using television as an instructional aid in the classroom. However, more than 40 other institutions of learning are providing programs for general adult educational purposes over present stations. Beyond this, 360 institutions of learning have signified their intention of using, either singly or cooperatively, the frequencies available to them for educational purposes.

It is to be hoped that some of the privately endowed foundations, such as the newly established Ford Foundation, will undertake to make much-needed research studies into the most effective use of TV for educational purposes, and to help develop suitable programs. Without question, television offers a far greater advantage in the field of education than radio could ever hope to offer. It provides the essential visual element which, in the development of visual aids in teaching and the utilization of educational films, is recognized today as one of the most effective factors in successful teaching. It also possesses the advantage of seeing and hearing *at the time* an event, a lesson, or a demonstration is happening. The amount of money required to establish and operate a TV station for educational purposes should be regarded as an investment for necessary plant equipment. It is an investment that will be repaid many times over in the increased efficiency of school or college operation, and in the greater impact on the minds of the pupil which this method of teaching provides.

EDUCATION AND THE NATION'S STRENGTH

United States participation in World War I lasted 19 months. We were in World War II a little over 3½ years, with a preceding defense economy covering a period of another year and a half. In both instances, the entire resources of the Nation were, to a large degree, concentrated on one objective—victory, with the expectation that after the victory, we could go back to "normal."

The present international crisis creates a radically different problem. Short of all-out war, the crisis may continue over a long span of time without being resolved in any clear-cut fashion. Periods of tension may give way to periods of merely "watchful waiting," to be followed by even more acute tensions. At no moment shall we be able to relax our guard.

We may, of course, be closer to a third world war than we are willing to admit, and the speed of our defense mobilization must be geared to that contingency. But even if—as we hope—we are able to avert the final catastrophe, we must prepare, together with the other free nations, to concentrate our strength and our resources to resist aggression wherever it may occur, in whatever quarter of the globe.

But in accepting this long-term responsibility of military preparation and all that goes with it, we also accept another responsibility—to preserve the great social advances we have made in recent decades. Above all, we must make sure that, for the critical years ahead, the education of our young people is given the highest possible priority in our national economy. Otherwise, we cannot rally our full strength to meet the developing threat to our fundamental liberties.

For its material needs the Nation's military and productive strength rests on the flow of young men and women who have a solid educational background into both our labor market and our armed services. Modern warfare, no less than modern industry, demands a high degree of mechanical knowledge and adaptability for which only our high schools can provide the basic training. Broadly speaking, a GI without such training is under a substantial handicap in acquiring the specialized skills needed to make him a top-rate soldier. And the same holds true for a worker in a defense plant.

Furthermore, we are wholly dependent upon our colleges and universities to give us the men trained in engineering, electronics, and the other sciences vital to the conduct both of a war and of defense production. This applies also to the doctors, dentists, and other professionals needed to keep our servicemen and workers physically in shape.

Failure to maintain the educational facilities of the Nation at their present level of effectiveness, or to expand and develop those facilities in every way possible, is to undermine our essential military and industrial strength. New school construction is but one index of the Nation's educational health, but it is a vitally important one. As part of our mobilization for defense we must face this problem squarely and set the same definite goals for its solution that we have set for the creation of a necessary army, navy, and air force. We must be prepared to state—and to act on the assumption—that the construction of a new schoolhouse is no less imperative, *as a defense measure*, than the construction of a new bombing plane; and that during the long

period of continuing crisis that lies ahead our educational plant is every whit as important as our military plant.

By the same token, we must be prepared to state—and to act on the assumption—that the recruitment and training of an adequate teaching staff for our public schools is no less imperative, as a defense measure, than the recruitment and training of young men for our armed forces. Other factors, of primary importance in the strengthening of our educational system, press for attention. All of them represent areas which demand study and research no less intensive than that applied to the production of new weapons, and action no less decisive than the creation of the atom bomb. The investment required to accomplish these objectives would still be only a small fraction of the billions we are spending for strictly military matériel. And every dollar spent for this purpose can be easily justified in terms of the long-range aspects of our national defense.

But the importance of education in our military and economic defense program is matched by its importance in the war of ideologies. Our citizens must be educated to think clearly about the issues of the present conflict. In the war of ideas, we cannot permit our enemies so to confuse us that we alter or destroy our own free institutions. This war of ideologies must be fought strictly with the weapons of democracy; any other weapons we may elect to use will, in the long run, backfire on us.

Certainly, the higher the level of education which the United States can achieve, the better are the chances for an informed and considered public opinion. For it is on such public opinion that we must ultimately rely in making the vital decisions of national policy we shall be faced with during the coming crucial years. To the extent that these decisions are the result of ignorance and prejudice they may endanger the very life of the Republic. Statesmanship of the most far-reaching sort cannot succeed unless it has the solid and intelligent support of the voters. And the effectiveness of our future leaders, whether in Congress or the county courthouse—will largely depend on the intelligence exercised by the electorate in their selection.

For this reason, the American people must grasp the danger of those forces at work in our society which are attempting to undermine its educational foundations. Recent events in several American communities, relating to the administration of the public schools in those communities, emphasize this necessity. Some taxpayers in these communities have made an issue of “modern education” and have rebelled at spending money for what they consider the “frills” in school administration and instruction. These budgetary considerations have been seized upon by some of the more reactionary forces in the community in an attempt to curb the development of education for genuinely democratic ends.

The appeal to ignorance and prejudice, in all their ugliest manifestations, has been used to discredit this "new-fangled nonsense," together with the sort of "smear campaign" that is increasingly being directed, within our body politic, against almost any form of liberal opinion.

The immediate danger is that school officials in other communities who are sincerely convinced of the usefulness of these modern methods will hesitate to risk an open assault on their judgments. Fear of expressing an outright opinion on a controversial subject will cause them to cling to their safe and old-fashioned methods. Education itself—whose very purpose is to dispel ignorance and prejudice—will be the victim of what, in essence, is an attempt to undermine our democracy by those forces of reaction which thrive on prejudice and ignorance.

Today, the United States and the other free nations of the world are facing a greater threat to their existence than in any other time in recent history. The basic conflict of the century is the struggle between the concept of democracy and that of the totalitarian state. Against the armed might of Soviet Russia we can match—and more than match—our own armed might. The sinister thrust of totalitarian ideas can be met only by free men whose convictions are deeply rooted in the democratic philosophy.

Education serves the cause of freedom and democracy more directly and more effectively than any other aspect of modern civilization. And few things contribute more to the dignity and essential worth of the individual. The opportunity offered our young people to obtain as much true education as they are capable of profiting from is, in a very real sense, the measure of our democratic strength. For the years ahead, education must stand as our chief weapon against the forces of darkness that inflict the age.

Work in Progress

NOTE: A detailed summary of the activities of each of the Divisions of the Office was in preparation at the end of the fiscal year, copies of which may be secured by writing to the Office of Education, Federal Security Agency, Washington 25, D. C., and specifying the particular summary or summaries desired. The brief résumé which follows suggests the range of these activities and highlights some of the more concrete accomplishments.

Much of the pressure on the comparatively small Office of Education staff comes from the requests for advisory and consultative services which the Office renders in a wide variety of educational fields. Staff members have a heavy correspondence schedule. Inquiries of all sorts are addressed to the Office, many of a highly technical nature demand-

ing a considerable amount of research to formulate the answers. School authorities and officials of educational organizations come to Washington to "talk over their problems." And staff members receive a large number of invitations to address conferences or to take part in work-shop panels which often involve a great deal of time-consuming preparation and travel.

During 1950-51, the normal pressure was greatly increased as a result of the many school and college problems arising out of the Korean crisis and defense mobilization. Moreover, it was necessary to assign a considerable portion of the staff personnel to the new defense programs initiated within the Office—such as, for instance, those connected with the claimant agency responsibilities—and in consequence much of the regular Office schedule was sharply disrupted.

In the preceding pages reference has been made to a number of studies and projects undertaken during the current year and also to the range of international activities. In addition, a large body of work was accomplished dealing with a variety of problems, all of it closely related to the continuing problems of American education.

STATE AND LOCAL SCHOOL SYSTEMS

The Office continued its work on basic problems connected with the administration of State and local school systems. Another in the series of studies on State departments of education, entitled *The Financing of State Departments of Education*, was completed. The first Nation-wide survey by the Office on the nature and extent of school transportation in cities was completed and published.

Two studies on the financing of schools were completed. One was the biennial study of Federal Government funds for education for the years 1948-50. The second was concerned with State provisions for financing public-school capital outlay programs. Work was also begun on the school expenditures survey, last made in 1939-40.

In the field of elementary education, the Office continued to focus on improving teaching practices and techniques. Staff members visited 35 school systems for research material. Several studies designed to aid teachers in various aspects of their work were published; 2 were issued for the benefit of parents; and at least 21 magazine articles or chapters for professional yearbooks were prepared.

A very substantial publication, entitled *Vitalizing Secondary Education*, was issued. This was a report of the first commission on Life Adjustment Education for the 3-year term for which it was appointed. Staff members developed the questionnaires sent to 38 school systems in connection with the "drop-out" problem.

Three other major publications were issued, *Learning To Supervise Schools*, *Education of Visually Handicapped Children*, and *Key-stones to Good Staff Relationships*. An intensive study of the work

methods of school principals was made, and also a study of the professional training given librarians. In addition, a large number of statistical studies were published in connection with the *Biennial Survey of Education*. And a catalog was issued listing nearly 400 films produced by, or for, various Government agencies which have been cleared for television rights.

One highly important project was a study of the total enrollment of pupils in all subjects in secondary schools for the second semester of the year 1948-49. The last investigation of this type was made in 1933-34. The survey shows concretely the changes that have taken place during the last decade and a half and demonstrates that these changes are definitely in the direction of more functional education and represent an effort to meet the life needs of increasingly diverse groups of pupils.

Major conferences at which staff members concerned with State and local school systems played an active part included the National Conference for the Mobilization of Education, the Fifth World Congress of the International Society for the Welfare of Cripples, the Midcentury White House Conference for Children and Youth and the Conference on Aging, the last two of which were sponsored by the Federal Security Agency.

VOCATIONAL TRAINING

During 1950-51 the Office of Education was active in administering the Smith-Hughes and George-Barden Acts under which approximately \$26,000,000 of Federal funds were allotted to the States for the promotion and further development of vocational education and for which an additional amount of approximately \$100,000,000 of State and local funds were used for vocational education in approximately 14,000 public secondary schools.

In determining the policies and procedures for the administration of vocational education, the Division of Vocational Education had the services of two groups of State personnel: The National Policy Advisory Committee for Vocational Education, composed of four Chief State School Officers who are Executive Officers of State Boards for Vocational Education and four State Directors of Vocational Education; as well as the Working Advisory Council consisting of eight State Directors of Vocational Education.

In cooperation with farm equipment manufacturers and oil companies, the Division developed 18 manuals on the care and maintenance of modern farm machinery for the use of vocational agriculture teachers and students. It also had the satisfaction of seeing The Future Farmers of America reach a record membership of 340,090. This national organization of farm boys enrolled in agricultural vocational classes has been sponsored by the Office since 1928.

The Home Economics Education Service organized and conducted two major national conferences during the year—one for teacher training in this field and the other for State and city supervisors. It also conducted an inter-regional conference for heads of Home Economics Education from 17 States, and cooperated with the Future and New Homemakers of America in conducting three leadership training conferences for their members. In addition, the Office sponsored a national conference of guidance supervisors and counselors at which 30 States were represented, and a variety of technical publications in this field were issued.

Special attention was given to assisting the various States in the planning, organization, and operation of training courses for practical nurses. A publication dealing with curriculum for the training of practical nurses was prepared in cooperation with the medical profession, professional nursing organizations, and vocational educators. Other activities included the development of instructional material dealing with training in food preparation in cooperation with the National Council on Hotel and Restaurant Education. Also, two of four projected studies of trade and industrial education were made on a cooperative basis by the Division, National and State representatives of the American Federation of Labor, and State vocational education staffs in Alabama and California.

Still another important activity has been in the field of adult distributive education. The Office is working closely with the various States in developing a training program in this field which will be published shortly. Continuing a project started a number of years ago, a series of vocational business tests were revised under the joint auspices of the United Business Association and the National Office Management Association. These are for use in both secondary schools and colleges and also by business firms, Government agencies, and other organizations.

HIGHER EDUCATION

In the field of higher education, the Office is increasingly concentrating its efforts upon basic problems which usually involve the cooperative work of several staff members. During 1950-51, a major survey, begun in the previous year, was completed and the findings published under the title, *Study of the Structures of the Tax-Supported System of Higher Education in Illinois*.

The improvement of the quality of instruction in colleges and universities is another area of research. In December 1950, a conference of 100 college teachers and administrators on The Improvement of College Faculties was cosponsored by the Office and the American Council on Education, and the report of the proceedings, prepared

by the Office, was published by the Council. Several studies were made in specialized fields, such as the teaching of dentistry, pharmacy, and engineering. A staff member collaborated with the American Political Science Associates in writing a fairly exhaustive report on the *Advancement of Political Science Teaching*. And a pamphlet was prepared relating to the organization and teaching of college introductory courses in United States history.

The Office also, during the spring of 1951, assembled information as to the number of college teachers who were likely to lose their appointments because of the expected decrease in college enrollments resulting from Selective Service inductions. This information proved immensely valuable to the Ford Foundation and other agencies which set in motion various projects designed to help these displaced teachers make the necessary readjustments.

A number of other fact-gathering assignments were also undertaken. Among the more important were: A survey of the need for personnel workers in the armed forces; a manual of certification requirements for school personnel; the annual Directory of Higher Education containing the names of all principal administrative officers in the 1,857 colleges and universities in the United States, together with other important material; data on available scholarships and fellowships; a study of engineering enrollment; and a survey of undergraduate economics classes.

As part of its statutory responsibilities, the Office assembled and examined the annual reports of the 69 land-grant colleges and universities and certified their respective shares of the Federal appropriation. It also made its annual inspection report to the Federal Security Administrator on Howard University, as required by law.

RESEARCH AND STATISTICS STANDARDS

Activities of the Office included the preparation of the *Biennial Survey of Education in the United States*—a continuous statistical program of the Office begun in 1870. The 1948-50 survey will include the four regular chapters covering the Statistical Summary of all education, State (elementary and secondary) School Systems, City School Systems, and Institutions of Higher Education. It will also include a National Summary of Offerings and Enrollments in High-School Subjects for 1948-49, covering enrollments in 274 subjects (noted above); and Statistics of Public Libraries. In this connection, all States were visited by staff members to promote more uniform records and accounts and obtain complete coverage for the biennial studies.

In addition, the annual statistical reports were made for Land-Grant Colleges and Universities; for the Fall Enrollment and De-

degrees Granted in Higher Education; for Enrollments and Degrees in Schools of Engineering; and for Expenditures Per Pupil in City School Systems. Work was begun on an annual study of Finances of State Colleges and Universities in cooperation with the Bureau of the Census, U. S. Department of Labor. And a pilot study on the Economic Status of Teachers was made in cooperation with the Department of Labor.

Materials were also prepared for the White House Conference on Children and Youth at the Midcentury; for the congressional study of Low-Income Families and Economic Stability; for the hearings on the Universal Military Training and Service Act of 1951, in relation to the effect that various proposed sections would have on the supply of college-trained men; for the Council of Economic Advisers through the Program Office of the FSA; for the Commission for Public Schools in New York; and for the statistical organization of the United Nations.

Field consulting service on more uniform records and accounts was continued with the directors of school finance of the 17 Southern States in Atlanta, Ga., and with the National Association of School Business Officials in Chicago, the Alabama Association of School Administrators at Auburn, Ala., and the Association of College Registrars and Administration Officers at Houston, Tex. Work with the State Departments of Education in Minnesota and Michigan and the City Department of Education in Boston resulted in 2 new State Manuals of School Accounting and a greatly simplified revised school budget for Boston.

PROGRAM DEVELOPMENT AND MANAGEMENT IMPROVEMENT

On the Program Development and Coordination Branch, established under the reorganization plan of February 1951, rested the responsibility for coordinating the plans to be projected in fiscal 1953, as well as review of the plans for fiscal 1952. The lapse of 15 months between the completion of plans for budget purposes and the passing of appropriation acts to carry out the plans makes necessary a continuous review and reconsideration of program, as a dynamic situation presents new problems.

In addition, a number of specific accomplishments in the field of management improvement can be recorded. These include: The centralization of control of conference funds; improvement in editorial services; more effective utilization of mailing lists; the initiation of a readership survey of *SCHOOL LIFE* to determine its editorial effectiveness in relation to other school and educational publications; and an evaluation of the foreign student credential service to colleges with a view to lightening an increasingly heavy work-load.

Food and Drug Administration

The task of the Food and Drug Administration—safeguarding the purity and integrity of the foods, drugs, and cosmetics for which the Nation's people spend about a quarter of their income each year—brings it close to the daily life of every citizen. This job strains the facilities of a staff of only a thousand even in normal times when the industries in general have the will and the know-how to maintain the quality of their products. Assistance to this large majority who want to obey the law, and leadership in fields where no group can work alone, have been major factors in the present high standards of products upon which the health and welfare of the American people depend.

In times of national stress, normal regulatory activities must be expanded; preparation must be made for operations that will meet any disaster emergency. In the event of enemy attack on this country, it would be the obligation of Federal, State, and local food and drug enforcement personnel to impound all dangerously contaminated foods, drugs, and cosmetics, and to supervise salvage or destruction of such material. A further task would be prompt supervision of the resumption of manufacturing operations to assure adequate controls under abnormal conditions.

To meet this obligation, FDA instituted in 1951 introductory basic training of its chemists, inspectors, and administrative staff and of key Federal, State, and local food and drug officers in the field to cope with problems resulting from atomic, bacteriological, or chemical attack. This training program must be long-range and everchanging to keep abreast of new developments in highly specialized fields. It has already laid a technical ground work for maximum contribution to the civil defense effort and has high-lighted the necessity of addi-

tional training in order to meet potential hazards not previously encountered in protection of the Nation's food and drug supply.

Although it is hoped that this will be merely an "insurance policy," present world unrest points to problems that must be faced. Experience in World War II brought added burden to the production, storage, and transportation of foods and drugs. Diversion of skilled factory workers, shortages of critical materials, stockpiling with inadequate storage protection, transportation delays—all take their toll on the purity and safety of supplies at a time when production must be "stepped up." High prices and scarcity create added incentives for the illegal substitution of spurious for genuine articles. The quality of imported products tends to deteriorate in direct proportion to the extent to which the country of origin is affected by the world crisis. Added regulatory control is required all along the line.

The consuming public, which normally takes it for granted that commodities available in the neighborhood grocery and drug store are pure and safe, becomes skeptical or even alarmed under the stress of national emergency conditions. This produces an unusually fertile field for exploitation. At a time when the American people have the most abundant and nutritious food supply in our history, many have been led by emotionalized, and often commercialized, propaganda to believe that their families will suffer from malnutrition unless well-selected diets are supplemented by especially prepared "health foods" and dietary specialties.

Grave concern also is being expressed by consumers about the safety of the food supply. Such concern has been augmented by news reports of testimony presented at the hearings of the select committee of the House of Representatives to investigate use of chemicals in foods. The FDA testified at the hearings that the food and chemical industries as a whole are responsible and conscientious, have consulted its experts about the safety of new ingredients, and have abandoned the proposed use of substances whose propriety was questioned. It recommended that new controls be instituted, however, to curb the fringe of careless or ignorant operators who are all too likely to use chemicals without sufficient testing to assure that they will not impair the health of consumers.

The report of the committee to the Eighty-first Congress expressed serious concern over the widespread and increasing use of chemicals in foods, and stressed the need for further study by the committee. A resolution continuing the investigation during the Eighty-second Congress was approved by the House and this investigation is still in progress. Testimony has been received from the foremost authorities in the fields of pharmacology, biochemistry, food technology, and related agricultural sciences. Spokesmen for industry, farmers,

professional organizations, and consumer groups, as well as for interested Government agencies, have appeared as witnesses.

The accounting for stewardship in the following report records court actions against the minority fringe of operators who disregarded the interests of consumers. Although such a record is inevitable in the report of a regulatory agency, it is only one aspect of the whole structure of consumer protection. The report also outlines progress in the less spectacular but often more significant phases of consumer protection—painstaking scientific investigations, evaluation of new drugs, formulation of new standards, certification of vital medicines, and judicial interpretation of a law enacted for protection of consumers.

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

In comparison with the large volume of sound foods that reached the consumer during the year, the proportion removed from the market because of filth and decomposition was small. In the aggregate, however, seizures of unfit foods approximated 8 million pounds—or an average of 12½ tons for every weekday of the year. These seizures represented more than 73 percent of the food cases for the year.

Processed vegetables and fruits again led the list in number of shipments seized. The largest single item was canned spinach from fields invaded by stem worms in the fall of 1950. Although canning association leaders warned all of the canning plants in the area that the fresh spinach contained worms, nine canners packed and shipped the infested material. A Nation-wide round-up resulted in seizure of 87 shipments from this section alone.

A shortage of domestic tomato paste brought a heavy increase in imports. At first the paste was of passable quality but the unprecedented market caused some foreign shippers to seek to unload on the United States large quantities of paste made from decomposed tomatoes. More than 16½ million pounds, 58 percent of the volume offered for import, was detained. At times as many as 10 analysts were engaged in examining imported tomato paste.

Detentions of imported figs, due to worm infestation, rose from 6.4 percent in 1950 to 29 percent in 1951. The heaviest seizures of domestic fruits involved strawberries containing rot. Many of the seized shipments were packed in 30-pound cans for use in preserves, ice cream, and other processed foods where their condition would not be detected by consumers.

Severe frost in the Rio Grande Valley caused extensive damage to citrus fruits. Over 3 million boxes of injured fruit was diverted from the fresh market to the packing of canned juice. For about a week the juice showed no signs of decomposition, but from then on deterioration was rapid. Surveillance by Federal and State inspectors and voluntary closing of many of the canneries kept the use of spoiled fruit at a minimum.

A Federal court enjoined shipment of apple chops contaminated with rodent excreta. About a million pounds of loose chops had been stored in a room heavily infested with mice.

Table 1.—Actions on foods during the fiscal year 1951

Projects ¹	Seizures	Criminal prosecutions instituted	Injunction petitions	Import shipments denied entry
Total.....	1, 120	247	2	3, 851
Beverages and beverage materials.....	9	2	0	278
Bakery products.....	10	17	0	90
Cereals and grain products:				
Human use.....	135	15	0	55
Animal use.....	15	17	0	12
Chocolate, confectionery, and other sugar products.....	96	20	0	424
Dairy products:				
Butter.....	65	27	0	0
Cheese.....	32	24	1	107
Miscellaneous.....	5	7	0	1
Eggs and egg products.....	28	10	0	4
Flavors, spices, condiments.....	83	5	0	1, 167
Fruits and fruit products.....	97	8	1	348
Macaroni and noodle products.....	15	3	0	27
Meat products and poultry.....	72	19	0	34
Nuts and nut products.....	64	7	0	52
Oils and fats.....	7	2	0	5
Oleomargarine.....	6	13	0	0
Sea food.....	99	28	0	519
Vegetables and vegetable products.....	277	23	0	678
Miscellaneous foods and food adjuncts.....	5	0	0	50

¹ Each project under which action was taken is reported. The total number of food seizures is 1,094 and of criminal prosecutions is 240. (See table 3.) Each of these totals is less than the totals reported above because table 3 reports combined seizure actions, particularly of warehouse merchandise, and criminal prosecutions against firms that ship foods classified in more than 1 group.

Second in number of food seizures was grain products, particularly flour and corn meal. All of the flour and meal seized was contaminated during storage after shipment from the mills. In general, however, the sanitation of warehouses has improved. The most serious factory sanitation problem encountered was in rice mills, where faulty construction and inadequate control forced many mills to rely mainly on fumigation of the finished, packaged article to destroy live insect infestation before interstate shipment. Criminal prosecutions have been instituted against mills where sanitary conditions were most objectionable. Several carloads of sour or moldy grain concealed by a topping of sound grain were seized and their shippers prosecuted. Large quantities of infested brewers grains were seized in carload lots because of live infestation.

In animal feeds the most serious violations were two shipments contaminated with dangerous chemicals. In one case, seed corn treated with a poisonous fungicide had been mixed with untreated corn. In the second, charcoal salvaged from surplus gas masks had been diverted to chicken feed, although the terms of sale precluded use for animal or human food. Its copper content killed many birds and the surplus material was removed from the market. The shipper is being prosecuted.

Poultry ranked third in the number of filth and decomposition charges. When meat prices increased, many inexperienced operators entered the field of poultry production. More than three times as many seizures of unfit birds were made as in the previous year. The main causes of complaint were contamination with fecal matter, preparation under insanitary conditions, and diseased and improperly dressed birds. Toward the end of the fiscal year, market surveys indicated that artificial caponization with diethylstilbestrol pellets was creating a regulatory problem. Instead of being planted near the base of the head according to directions, the pellets frequently were placed so low that undissolved portions were found in the edible parts of dressed birds. Samples collected in June 1951 resulted in seizures after the end of the period covered in this report.

In general, candy factory conditions improved but in isolated instances they were deplorable. One firm had suffered a prolonged strike during which the equipment and stocks of raw materials became seriously overrun by rodents and insects. When FDA inspectors arrived 5 days after resumption of operations, the firm was preparing unfit materials in contaminated equipment. Eight shipments were traced and seized. A manufacturer recalled outstanding shipments of "Tricks or Treat" Hallowe'en candies following reports that they were causing digestive trouble in youngsters.

In number, dairy product seizures were identical with those of the previous year, but general improvement in the quality of milk used was noted by several districts. The public attitude toward the use of unfit raw materials is reflected in the condemnation, by a jury containing 9 members with a farm background, of 8,640 pounds of butter seized on charges of use of filthy raw materials. Unique in food-processing history was the development of botulism in a 10,000-case pack of Liederkrantz cheese spread, which the manufacturer recalled after a death was attributed to its consumption.

Sea-food seizures were lower in number than in recent years. Substantial improvement in the expeditious and sanitary handling of fish and shellfish by canneries and freezers has lessened the regulatory problem. Detentions because of parasitic cysts have likewise decreased because of new Canadian controls of exports. State mussel quaran-

tines during the gonyaulax toxin season prevented poisoning cases from that source.

The courts have been alert to the significance of objectionable sanitary conditions. One judge directed a baker to dispose of his bakery or its control within 60 days as a condition of a 5-year probation. He said that drastic action is called for when processors become insensitive to the duties they owe the public in the preparation of food-stuffs. Two jail sentences were served, one by a man who shipped dried mushroom products packed 6 to 8 years earlier, after FDA inspectors had warned him that the products were seriously contaminated with insects and worm fragments. The other sentence was served by a man who shipped popcorn containing rodent hair and excreta.

Seven other jail sentences for traffic in decomposed or filth-contaminated food were suspended on condition that violations cease. Among the substantial fines assessed for unfit food were 30 ranging from \$1,000 to \$3,750.

Affording high illegal profits, black pepper debased with paradise seeds or other adulterants led the list of "economic violations" charged in food seizures. Next in number of seized shipments were "sorghum" containing glucose, and butter having less than the legal percentage of fat. Oysters with water in excess of that permitted by official standards accounted for an increased number of seizures. The excess water resulted from soaking the oysters for extended periods, during which they absorbed abnormal amounts of water.

During the first 4 months of the fiscal year 1951, plans were made for the enforcement of the oleomargarine amendment approved on March 16, 1950. This amendment invests the Food and Drug Administration with the authority to prevent illegal distribution of margarine and its sale or serving under the guise of butter. From July to October 1951, manufacturers and oil mills were inspected, training seminars were held within the regulatory staff, project plans and instructions were issued, and a statement of policy was published in the *Federal Register*. As soon as FDA inspectors authorized under the appropriation for enforcement of the oleomargarine amendment could be appointed, inspections of public eating places began. At the end of the fiscal year, 23,747 such inspections had been made.

At first, emphasis was placed on educating restaurant operators on the requirements of the new law. During the last few months of the year, citation notices were issued to operators of public eating places found violating the requirement that patrons be notified that colored margarine was being served. Three criminal actions were brought for alleged oleomargarine violations, two for fat below the official standards, and one for the sale of margarine labeled as butter.

Sea-Food Inspection Service

Furnished on voluntary application of shrimp and oyster canners who meet the Government's requirements for sanitation and adequate controls, the sea-food inspection service is supported entirely by fees paid by participating packers. During the fiscal year 14 canneries packed canned shrimp under inspection and 11 packed canned oysters; 7 packed both. The year's inspected pack increased to 212,882 cases of shrimp and 74,914 cases of oysters. Toward the close of the year plans were under consideration for extending the service to packers of frozen shrimp and shrimp specialty products, and fresh iced shrimp.

PRODUCTS OF SPECIAL DIETARY SIGNIFICANCE

An attempt to undermine public confidence in the nutritive value of the Nation's food supply is being fostered by mercenary and "faddist" elements. In times of national emotional stress, their efforts are bearing undeserved fruit. Since unrestricted quantities of nourishing food are available to the American public at every grocery store, regardless of the season, the Food and Drug Administration sees no cause for this concern. Those who are fomenting the idea that plentiful nutritious foods must be supplemented by pills and "elixirs" usually have a commercial interest in such food additives. They are presenting some of the most troublesome current problems faced by the Food and Drug Administration.

Eating should be fun. Bread and cereals, meat, dairy products, fresh fruits and vegetables, and other staples of the American diet are more delectable than mill and refinery residues, desiccated greens, pills, or bottled medicines, and equally, if not more, nutritious. People with hard-pressed food budgets are being victimized by the type of propaganda which implies that special additives are needed.

For those who find it necessary to follow diets regulated by physicians, the Food and Drug Administration exerts every regulatory control to assure the proper composition of the recommended dietary food. During the year, 875 samples were assayed by 2,211 tests for compliance with labeled specifications.

Among the regulatory actions terminated in 1951 was a long-litigated case described in previous reports. An injunction was stipulated to in April 1951 to prevent misbranding claims by the firm and its 15,000 door-to-door agents. The product was a vitamin and mineral combination, with a base of dried alfalfa and various other greens. Promotion of such products by lay canvassers, in the privacy of homes of prospective purchasers, inevitably results in sales to ailing and uninformed people who do not know the cause of their fancied or sometimes desperately serious disease conditions. There is great danger that the use of such intrinsically harmless preparations for the treatment of undetected serious diseases, stimulated by

impressive sales talks, will result in delay in seeking competent medical advice until it is too late.

Unusual in injunction cases, the decree "spelled out" the claims which may and may not be made. The decree prohibits the sales argument that virtually all human ailments are caused by diet deficiencies and that medical diagnosis is not essential to successful treatment. Claims for 57 diseases are specifically banned—including indications that the product has any value in treating cancer, heart trouble, diabetes, arthritis, and rheumatism. After the injunction case was settled, a criminal indictment of the firm and its principals was dismissed and several seizures were terminated by stipulation.

A fine was imposed on the operators of a mail-order business in crude black molasses promoted by a booklet listing 27 diseases, none of which can be prevented or cured by dosage with molasses, however crude. Among the serious diseases listed were cancer, tuberculosis, and heart disease.

Seizure was made of a shipment of blackstrap molasses promoted in a "health food" retail store by displays of a "best seller" book which extolled the virtues of blackstrap for lengthening life, menopause difficulties, digestive disturbances, regrowth of hair on bald spots, and many other conditions; the Government charged that such claims were false and misleading. The books displayed with the molasses were also seized but were temporarily dismissed from the action because of a court finding that the libel did not show clearly the close relation necessary to constitute accompanying labeling. Seizure of the books was permitted in June 1951, however, when this objection was met by an amended libel showing clearly that the book was used to foster sales of the seized molasses.

DRUG TRAFFIC

Approximately 75 percent of the criminal actions alleging drug violations were directed against illegal sales of prescription drugs. These cases were based on aggravated abuses—not on an occasional error by the clerk of a pharmacist who did not sanction unauthorized sales. In about 90 percent of the cases the drugs sold or refilled without prescription included barbiturates or amphetamines (Benzedrine or Dexedrine) which in many sections of the country are causing as much drug addiction as are narcotics. The other 10 percent of the cases involved sulfa drugs, thyroid, and various hormone preparations dangerous for self-administration. Frequently, violators were found to be selling both the habit-forming and other dangerous drugs.

"Leads" to violators came from hospitalized victims, police officers and social workers in "skid row" sections, coroners, physicians, hospitals, venereal disease clinics, and others faced with problems caused by the availability of dangerous drugs to addicts and other persons

incapable of using them properly. Before each case was brought, FDA inspectors, without identifying themselves and without physicians' authorization, made purchases of drugs which were restricted by their labeling to prescription sale. In one instance, they obtained five barbiturate refills in 10 days on a prescription issued to a woman who had committed suicide by taking overdoses of the drugs. Most druggists refuse to sell prescription drugs without authorization. The fringe operators are a decided reflection upon the pharmacy profession.

With the shutting-off of supplies of barbiturates and amphetamines from ethical stores and the legal actions which are discouraging fringe operators, illegal drug traffic is going underground. So far, supplies obtained from bootleg channels have originated from legitimate stocks. It is becoming increasingly necessary, however, to develop special investigating techniques to apprehend illegal sales. "Flying squadrons" of inspectors specializing in collecting the evidence required to convict underworld operators in Federal court have supplemented district inspectors to good effect in areas where conditions are critical.

Eighty-six convictions for illegal sales or refills of prescription drugs were obtained in Federal courts in 1951, many including the firm, its owner, and one or more pharmacists as defendants. Eighty cases resulted in fines ranging from \$5 to \$2,500 for individuals included in the actions. In the other 6 cases, and in 14 where fines were assessed, the defendants were placed on probation for periods ranging from 1 to 5 years. One probation violator was sent to jail for 8 months. After the end of the fiscal year Congress enacted legislation to provide more effective and direct Federal control in this field.

The 1950 report listed two Government appeals of injunctions to stop promiscuous mail-order shipments of prescription hormone preparations. On June 18, 1951, the Circuit Court of Appeals for the Ninth Circuit remanded these cases to the district court with instructions to issue permanent injunctions. After the appellate court decision but before the ban could be officially invoked, the firms conducted Nation-wide "going out of business sales," urging patrons to purchase a several years' supply while they could still do so without prescriptions. The Administration issued public warnings on the dangers of unsupervised use of the male and female sex hormones involved. Potential injury by stimulating dormant cancer cells in sex organs was stressed. Physicians aware of such dangers do not prescribe these drugs to persons who would be susceptible to such reactions.

Ten dangerous drugs were recalled from the market in 1951—in comparison with 17 in 1950 and 33 in 1949. Four of the 1951 recalls were undertaken voluntarily by the manufacturers, in each case with prompt notification of the Food and Drug Administration. The other six recalls were initiated at the suggestion of the Administration. Four recalls were necessitated by nonsterility of the product, two by errors in labeling, one by faulty directions for use, two by unusual reactions in patients, and one because the drug had transmitted a rare disease in some patients. About 57,000 bottles of a drug were recalled when serious eye infections of several patients revealed that the drug was contaminated with one of the types of bacteria the product was intended to kill.

Manufacturing controls in drug plants in general have shown a gradual but steady improvement along the special lines recommended in the 1949 report. This has resulted not only in fewer recalls but in a reduction in seizures of pharmaceuticals failing to meet official or professed standards of composition and purity. Low-strength conjugated estrogens accounted for nearly all of the nonofficial drug preparations removed from the market by seizure in 1951.

A Federal judge, in fining a corporation and its president and chief chemist \$4,500 for shipping an improperly compounded anesthetic that had caused injuries to 67 persons, commented on the progress in the drug industry as a whole, in contrast to the careless practices of the defendant firm, and added:

The court can't lose sight of the fact that any company that is engaged in the drug business is under the strictest duty to maintain the integrity of that industry. The public has no way at all of protecting itself against the use of harmful drugs. . . .

In proprietary remedy cases, the courts were particularly critical of untrained persons who prepared medicines and recommended their use for disease conditions. A compounder of an acetone preparation for hemorrhoids was sentenced to a Federal work camp by a judge who said "You're not an expert or a medical man. You have no more business treating people for disease than I have."

The heaviest sentence of the year was 9 years in prison and a \$9,000 fine imposed on an "African herb doctor" who testified at the trial that he took his formulas from a book by the "noted Dr. Culpepper of England." He later agreed that he was aware that this physician had died in 1640, and admitted that he himself had been convicted in three States for the illegal practice of medicine. The judge commented: ". . . many people fall prey to this sort of thing through ignorance. Untold hundreds and thousands use these quack medicines to their detriment."

An "Indian herb doctor" enjoined in October 1950 was operating a combined motor court and treatment center for "sick and afflicted persons" who, according to his post card advertising, "come from all over the United States in request of relief of their ailments." The Federal case was brought because "runners" were taking his perishable medicine in unlabeled quart jars across State lines to patients who were buying weekly refills. The same nauseating concoction of ground-up external animal growth, milk, and nitrates apparently was used for all diseases, which the "herb doctor" diagnosed by looking at the patient's hands and nails. The FDA inspector who joined the patient line-up was told he had diabetes, advised against insulin, and forced to drink a glass of the unpalatable medicine before he left the premises.

Another injunction petition was denied by the United States district court and has been appealed. A "cancer clinic" alleged to be shipping worthless "cures" in interstate commerce was defendant. The appeal will be heard in the next fiscal year. Controversies in the district court trial developed over testimony of satisfied and dissatisfied patients, or relatives of cancer patients who did not survive to testify. As in other trials involving patient witnesses, the Government testimony was backed up by physicians who attended patients, both before and after treatment by the supposed cure, and who testified that it was worthless.

Also brought before a Federal court in 1951 were the promoters of a worthless cancer "cure" and general nostrum called "Fountain of Youth." The preparation was a simple mixture of oils, suet, and spices. The promoters, who received 1-year suspended prison terms and were fined, mixed religion with their therapy. The product was labeled—"Praise God From Whom All Blessings Flow. We hope and pray we have discovered the road to freedom from disease." The judge warned the defendants to stay out of the drug business or go to jail.

New Drugs

During the fiscal year, 538 new-drug applications were received and 427 were permitted to become effective. These include 178 applications for veterinary products of which 171 were allowed to become effective. No applications were formally revoked or refused. The criterion for approval of new drugs is safety when used as directed in the labeling. Therapeutic claims of efficacy are subject only to the general drug provisions of the law, which apply after a new drug is marketed.

Among the important new drugs considered during the year were a blood plasma extender, a number of ACTH and cortisone products,

preparations of the antibiotic drugs neomycin and polymixin B, a synthetic morphine substitute, a number of curarelike drugs, and some new anticoagulants. A substantial number of applications involved combinations of antihistamines with other drugs.

THERAPEUTIC DEVICES

Defective thermometers or condoms accounted for 17 of the 40 devices seized. Sixteen others were various types of electrical apparatus misleadingly labeled as weight reducers or treatments for disease conditions. Others included colonic irrigators, pinhole spectacles to correct eye troubles, inhalers, and plastic suits for weight reduction, all labeled with misleading claims.

Most dangerous, apart from vicious claims which many made to cure serious diseases, was an X-ray machine being used to remove superfluous hair by a beauty shop operator without training in the X-ray field. Doses heavy enough to kill hair follicles will cause severe injury to the skin which may even result in skin cancer many years later. Heating pads without thermostatic controls were other dangerous devices seized.

A criminal action tried before a jury for 8 days ended in the conviction and fine of a manufacturer of a fake device resembling a flashlight with a roller on the end and several attachments which delivered an electric shock to the user. Under another name, it had been the subject of a contested seizure trial in 1941, when the judge who upheld the seizure said, "The claims made for the device were as falsely misleading as well might be possible by the use of the English language." The manufacturer ceased operations, but resumed them after the war. He changed the claims for the rechristened device to some extent, but still promised that it would help arthritis, earache, menstrual disturbances, sleeplessness, nervous disorders, rheumatism, heart attack, and paralysis, and that the wire hair-brush attachment would remove dandruff.

Another criminal action resulting in a fine was taken against a firm shipping a device intended for internal massage of the prostate. In addition to false and misleading claims for the device, it was charged to be dangerous if used as directed. After the trial, manufacture and distribution ceased.

COSMETICS AND COLORS

Two types of cosmetic preparations were seized as dangerous. One involved several shipments of ammoniated dental cream containing hard, irregular slivers of an ingredient material. The other, labeled "Assorted Character Make-up," contained uncertified dyes. Seizure

of a shipment followed hospitalization of a child whose face became swollen after using the creams for Hallowe'en.

Another seizure, actually of a device, removed from the market a shipment of "color combs" falsely labeled as containing dyes complying with Food and Drug regulations. No actions were required during the year involving the use of uncertified colors in foods and drugs.

CERTIFICATION SERVICES

All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as safe and suitable for use. In 1951, 4,466 batches, representing 4,855,120 pounds, were certified, and 38 batches, representing 19,463 pounds, were rejected.

Predistribution testing and certification of certain drugs which cannot be controlled adequately under usual regulatory procedures are provided by four amendments to the act. Examination of 298 samples resulted in the certification of 67 materials for use in making batches of insulin-containing drugs, and 71 batches of insulin, 87 batches of protamine zinc insulin, 44 batches of globin zinc insulin, and 27 samples of NPH insulin, the latter admitted to certification during the fiscal year. One trial mixture of protamine zinc insulin was not approved because it failed to meet the biological tests, and a batch of NPH insulin was withdrawn by the manufacturer when viable mold organisms were found during the tests.

Examinations were made of 17,485 batches of penicillin, streptomycin, dihydrostreptomycin, aureomycin, bacitracin, and chloramphenicol, and preparations containing these antibiotics. This is an increase of 254 batches over the batches examined during the preceding year, even though the 1951 totals do not include crystalline penicillin G sodium and potassium which were exempted from certification in April 1950. Ninety-four of the batches examined during 1951 were rejected for certification for failing to meet the following standards: Sterility (56), potency (24), histamine content (5), pyrogens (4), residual streptomycin content in dihydrostreptomycin (3), and moisture (2). Examinations of 838 official samples of certifiable antibiotics collected from trade channels resulted in manufacturers' recalls of 44 batches from the market. Forty of these had lost substantial potency subsequent to certification and four were labeled with incorrect expiration dates. Seizures were made of two shipments of a preparation falsely represented as containing aureomycin.

REGULATION-MAKING ACTIVITIES

Only two changes were made in the general enforcement regulations. Provision was made for the special labeling of cheese being held for aging or requiring other specific types of labeling under the

requirements of the cheese standards. The import regulations were amended to recognize the conditional release of imported articles to be brought into compliance with the law by relabeling, by manipulation (including cleaning or sorting to remove adulterated portions), or by other means. Payment for supervisory costs of such reconditioning operations was specified.

The hearing to establish spray residue tolerances, which started in January 1950 and was discussed in the last report, was completed in September 1950. The American Phytopathological Society made significant contributions by presenting results of a Nation-wide survey of substances used in plant pathology. Throughout the hearing the Food and Drug Administration received the close cooperation of the Public Health Service; the Bureau of Entomology and Plant Quarantine and the Insecticide Division of the Production and Marketing Administration, United States Department of Agriculture; many State agencies; and others vitally concerned in the substances required in the production of food crops and the residues that may safely be permitted to remain on the food when it is marketed. Because of the voluminous record, it was impossible to issue a proposed order setting tolerances during the fiscal year.

Food Standards

Several orders were issued based on other hearings concluded in 1950. Final orders were promulgated fixing definitions and standards of identity for practically all cheeses and foods made from cheese products; and for mayonnaise, french, and other salad dressings. The omission of cream as an optional ingredient in salad dressing was appealed by a manufacturer of a product containing it. The Court of Appeals for the Third Circuit remanded that part of the order to the Administrator to reopen the hearing to take further evidence on whether cream should be included as an optional ingredient.

A proposed order establishing definitions and standards of identity for several kinds of bread and rolls was published in the Federal Register of August 8, 1950. Certain consumer groups expressed apprehension because they misunderstood the provisions of the proposed standard for white bread and thought the Administration was trying to put a ceiling on bread quality. In a special notice to consumers entitled "The Facts About Bread Standards," FDA explained that it was attempting, in harmony with its food standards obligations, to provide for accurate labeling by name so that the consumer can make his own choice of the type of bread he wants, and that breads of different identity than white bread can be marketed under properly descriptive names.

Other tentative orders proposed definitions and standards of identity and fill of container for frozen fruits in bulk and in consumer-sized packages, and definitions and standards of identity, quality, and fill of container for canned corn. Amendments were proposed to the canned mushroom standards by deleting certain optional ingredients but permitting limited amounts of ascorbic acid as an optional ingredient. A hearing was held and a proposed order issued in 1951 to amend the standard of identity for evaporated milk, which would raise the minimum requirement for the optional ingredient, vitamin D, and change the method for its determination.

Other hearings held in 1951, for which no proposed orders have yet issued, covered definitions and standards of identity for ice cream, sherberts, and ices (still in progress); amendments to the definitions and standards of identity for preserves, jams, fruit jellies, and fruit butters to change the provisions on optional sweetening ingredients; and for oleomargarine, to increase the minimum vitamin A content of fortified oleomargarine, permit the use of additional types of vitamin A, include certain citrates and soya products as optional ingredients, and provide for the name "margarine" as a synonym for "oleomargarine," as is done in the oleomargarine amendment to the act.

COURT INTERPRETATIONS

The Supreme Court on March 26 reversed the Court of Appeals for the Tenth Circuit, and thus upheld the District Court of New Mexico by ruling that "imitation jam" is a legal product of interstate commerce. The court said that the product in question "purports and is represented to be only what it is . . . an imitation. It does not purport nor represent to be what it is not . . . genuine 'jam'."

The Court of Appeals for the Ninth Circuit held that the Administration has full authority to require the prescription legend on drugs which cannot be safely and effectively used by the layman.

A decision of the Court of Appeals for the Second Circuit held that green coffee beans fall within the statutory definition of a food. The decision followed a consolidated appeal of conflicting decisions of the District Courts of Eastern New York and Southern New York in seizure actions against "coffee sweepings." The former had found that green coffee was food and upheld two seizures, the latter had dismissed a third seizure on a finding that green coffee was not food and therefore not subject to the requirements of the act.

The Court of Appeals for the Tenth Circuit held that devices assembled after interstate shipment and misbranded with physically unattached circulars not shipped interstate were subject to seizure and condemnation.

The Court of Appeals for the Seventh Circuit upheld the District Court for the Southern District of Indiana in a ruling that two shipments of adulterated tomato catsup, both seized in the Eastern District of Missouri, could not be transferred to the Southern District of Indiana for trial. The statute authorizes transfer of adulteration cases *only* when two or more such cases are pending in *two or more jurisdictions*. In another seizure transfer case, the Court of Appeals for the Fourth Circuit sustained an opinion of the Southern District of West Virginia that a single seizure proceeding alleging both adulteration and misbranding cannot be transferred to another district court.

In denying a motion to dismiss a criminal action on the ground that the defendant did not offer the article for interstate shipment, the District Court for the Southern District of California ruled that "A sale the parties to which are from different States, when such sale necessarily involves transportation of goods, is a transaction in interstate commerce."

The Court of Appeals for the Ninth Circuit held that "adequate directions for use" requires a statement in the labeling setting forth the purpose for which the drug is to be used.

The District Court for the Eastern District of Washington held that an officer of a corporation may not refuse to grant permission to inspect the firm's plant.

Other Acts Enforced

Tea imports, examined under the Tea Importation Act, were the largest in the history of the act. Shipments examined in the fiscal year 1951 totaled 106,266,696 pounds. Rejections because the tea did not measure up to standards amounted to only 140,202 pounds, or 0.13 percent. One rejection by the examiners was appealed, but the United States Board of Tea Appeals upheld the examiner's decision.

No violations were encountered under the Filled Milk Act and only one under the Caustic Poison Act, a sodium hydroxide wood bleach not labeled with the word "Poison" or with directions for treatment in case of injury. Importation of milk from Canada under the permit system provided by the Import Milk Act continued at the low rate of recent years.

Scientific Investigations

Fundamentally the Food and Drug Administration is a scientific institution, working through law for the welfare of the consumer.

Every action must be based on scientific fact. Many institutional and private scientists contribute to the large body of scientific data employed. It is the special function of the regulatory scientist to verify their findings, adapt them to enforcement problems, and supplement them by original research in fields which others have not explored. All of the scientific investigations conducted by the Food and Drug Administration are specifically aimed toward evaluating and testing foods, drugs, devices, and cosmetics.

Evaluating is not a narrow term. It encompasses the safety of products, the contribution which each constituent makes to a mixture and the changes it may cause, consumer conceptions, professional opinions, and the many other factors that go into furthering the purity, safety, and accurate and informative labeling of the regulated commodities.

Testing goes beyond dictionary definitions. Frequently in this field there is no objective test until the regulatory scientist devises it, and he must keep improving his own tests to keep up with the times. He must advance with industrial progress, adapting his analytical methods to more precise instruments as they are developed, and sometimes inventing his own. He must be alert to every new substance proposed for use and often isolate and measure minute amounts so that the biologists and pharmacologists can measure their effect on living organisms.

In order to estimate the effect of the introduction into the national diet of synthetic emulsifying agents, extensive animal-feeding tests are continuing. Numerous emulsifiers were proposed at the bread standard hearings. Many are finding their way into other food products, and the studies have been expanded as the food use of the emulsifiers increased. Since 1948, over a thousand animals of several species have been tested with a wide range of diets to which the test material was added.

Also still under way are extensive studies of the effects of insecticides on warm-blooded animals. Two-year rat-feeding tests with pyrethrum, rotenone, and methoxychlor were completed in 1951. Figures obtained from analyzing samples of human fat and mothers' milk have indicated that man stores DDT in his fat at 5 parts per million, or at about the same rate as the rat. The milk tested averaged 0.1 part per million.

Chemical studies of poisonous residues have been directed toward accurate measurement of minute amounts. A rapid qualitative test for detecting as little as 2 parts per million of the deadly rodenticide "1080" in foods or biological tissues was developed and used to study the distribution of the poison in the tissues of test animals. Tech-

niques were developed for using chromatographic adsorption columns and various ion-exchange resins to remove natural waxes and other substances that interfere in the determination of benzene hexachloride. An analytical method developed by the Bureau of Entomology and Plant Quarantine was refined in collaboration with that Bureau and a food-processing laboratory to such a degree that it will detect as little as 0.1 part per million of benzene hexachloride in fats and oils and 1.0 p. p. m. in other foods. A quantitative method for determining accurately as little as 10 millionths of a gram of mercury was perfected.

In collaboration with other organizations, through the U. S. P. Study Panel on Vitamin B₁₂, a microbiological assay procedure for vitamin B₁₂ was developed that will make possible more effective control of the potency of pharmaceutical preparations for the treatment of pernicious anemia. The discovery of vitamin B₁₂ in 1948 and its subsequent identification as the pernicious anemia principle of liver preparations was a major advance in medical science. The new assay method has been accepted by the United States Pharmacopeia, and after January 1, 1952, liver extracts will be labeled to show their vitamin B₁₂ activity. For more than 20 years it had been possible to measure the potency of liver-extract preparations only by clinical tests on pernicious anemia patients.

During the past year it was concluded that pyridoxine (vitamin B₆) is essential to human nutrition. There is insufficient evidence to determine the minimum daily requirement but preliminary studies suggest that it is in the same range as that for thiamine. Methods for the determination of vitamin B₆ have been unsatisfactory; during the year a chemical colorimetric method was developed in the Food and Drug Administration that is suitable for routine application to complex pharmaceutical products. It needs further study and confirmation, however, in dealing with lower potency materials such as foods.

Among the other drug methods developed during the year were those for the determination of free estrogens in oil solution, suspension, and tablets; antihistaminics; and butycaïne. Projects now under investigation include analytical methods for conjugated estrogens, cortisone and related adrenal cortex hormones, androgenic hormones, progesterone, and epinephrine and related compounds. The Administration has cooperated with the United States Pharmacopeia Revision Committee in a collaborative assay of ACTH, leading to the adoption of a reference standard for it, badly needed in view of its increased therapeutic use.

Three new insoluble penicillins were studied for toxicity and blood concentration and one new insoluble penicillin and an aureomycin

suspension for pediatric use. New sterility investigations for antibiotics have been undertaken in an attempt to find suitable inactivators. Chemical methods for the determination of chloramphenicol and of histamine in dihydrostreptomycin sulfate have been completed and are now under way for the determination of mannosidostreptomycin in the presence of streptomycin and histamine in streptomycin.

Antibiotic studies also included the development of methods of assay for penicillin, aureomycin, and bacitracin in animal-feed concentrates, and in the final feed. *In vitro* studies of four antibiotics against three species of brucella showed that terramycin was less effective than neomycin, aureomycin, or streptomycin.

In an evaluation of penicillin tooth powder for safety, extensive studies were made on the development of resistance to penicillin of various micro-organisms found in the mouths of individuals using the tooth powder for extended periods. Investigations were made also of other products incorporating antibiotics, including gauze pads impregnated with streptomycin, bacitracin, and polymyxin. These were tested on infected wounds of guinea pigs.

A joint study with the United States Naval Dental School on the bacteriology of the oral cavity has been in progress during the year, to furnish basic information for the evaluation of oral antiseptics.

Originally used as an antioxidant in the rubber industry, tetraethylthiuramdisulfide was recently found to be a useful adjunct in the treatment of chronic alcoholism. Life-span tests on rats at varying dosage levels are being conducted in order to find out whether any harmful effects might be expected from the long-continued use of this chemical as a drug. Some adverse effects on the nervous system have been observed. Studies are being made also on the value and possible untoward effects of two "plasma extenders," dextran and polyvinyl pyrrolidone, intended for use in emergencies where whole blood or blood plasma are not available. Storage of polyvinyl pyrrolidone in several organs has been observed.

The safety and efficacy of veterinary preparations are under continual investigation. Negative results were obtained when wheat germ oil was fed to cattle for the treatment of brucellosis. Poultry feeding studies of nux vomica and powdered gentian, the basic drug ingredients of most poultry tonics, showed no value for increasing the intake or utilization of feed. Also ineffective was the use of triethylene glycol vaporization in the prevention or control of Newcastle disease of poultry.

Cosmetic investigations completed during the year included two new techniques for application of spectrophotometric procedures in analytical chemistry and improved methods for analyses of hair dyes and for identification of surface-active agents. Several of the

newer soapless detergents were studied for their irritating effect on the skin or eyes. While not recommended for use in the eye, they frequently reach the eye when used in shampoo formulas or gelatin bath capsules which sometimes squirt out their contents unexpectedly when broken.

Field and laboratory studies on decomposition of food have continued along both chemical and microanalytical lines. The reliability of butyric acid and water-insoluble acids as an indication of the use of decomposed cream in butter has been confirmed by further study. Galacturonic acid appears to be one of the byproducts of decomposition in fruit and offers a promising means of detecting the use of unfit fruit in juices and concentrates. A new and more sensitive method for determining it in fruit products was perfected. Microanalytical methods have been improved also for detecting rot in fruit products and tomatoes.

Work on the improvement of analytical methods is continuous as are studies on the isolation and detection of various food poisoning agents and the developmental work on which the formulation of standards is based. Frequently such studies do not fit into fiscal year reporting—in fact many can probably never be considered “finished business” to a regulatory agency.

One investigation was definitely planned on a 1-year basis, however, and it was the largest single study enterprise of the year. The last annual report mentioned the beginning in the spring of 1950 of a comprehensive inquiry into wheat and corn contamination. In this program, data were obtained to determine the relation between insect and rodent contamination of grain and contamination of the flour and meal made from it, to evaluate the effectiveness of mill cleaning equipment, and to determine the condition of commercial grain being delivered to the mills and available on the market. Such information should help the miller to guard against the acceptance of grain unfit for human consumption.

Correlated samples of wheat and corn before and after cleaning, and of flour and corn meal made from it, were collected at each of 23 cooperating mills at monthly or semimonthly intervals throughout a year. Also, samples representing over 7 million bushels of wheat and 5 million bushels of corn were collected as delivered to representative mills, from railroad carlots, and at terminal markets, along with information regarding the type of grain, State of origin, grade, and other pertinent facts.

These samples were carefully examined by trained personnel for evidence of insect infestation and rodent contamination and the result-

ing mass of data, coded and tabulated on punch cards, is now under study. Results will be published.

Enforcement Statistics

The percentage of time to be devoted to each class of product is determined at the beginning of the fiscal year under a planned project system of operations. The seriousness and extent of violations anticipated in each industry, and its volume of output, are the controlling factors in the apportionment of enforcement activity.

Table 2.—Enforcement activities during the fiscal year 1951

Item	Percentage distribution of enforcement time	Number of factory inspections	Number of samples collected
Domestic.....	90.8	13,357	27,665
Foods.....	62.5	10,637	20,619
Drugs and devices.....	26.5	1,954	5,418
Vitamins and foods for special dietary use.....	5.8	289	1,185
Cosmetics and colors.....	2.2	414	362
Other acts and miscellaneous.....	3.0	63	81
Import.....	9.2	0	13,188

Table 3.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1951

Item	Total		Criminal prosecutions instituted		Seizures accomplished		Injunctions requested
	Violative samples	Actions	Violative samples	Actions	Violative samples	Actions	
Total.....	3,207	¹ 1,692	1,210	¹ 347	1,997	1,341	4
Foods.....	2,197	1,336	632	240	1,565	1,094	2
Vitamins and foods for special dietary use.....	68	42	25	12	43	30	0
Drugs and devices.....	933	313	553	102	380	209	2
Cosmetics and colors.....	7	7	0	0	7	7	0
Caustic poisons.....	1	1	0	0	1	1	0

¹ In 7 criminal prosecution cases both food and drug violations were alleged in the same information.

The seizure actions shown in table 3 are usually terminated before the end of the year, except for a few in which court contests are pending. In some cases, criminal prosecutions and injunctions instituted in one fiscal year are not actually terminated in Federal court until the following year or even later. The number of samples on which actions are based always exceeds the number of actions. A variety of articles may be seized in a single shipment, while criminal actions are usually based on a number of counts and each sample usually represents a single shipment which forms one count.

Table 4.—*Import inspections and detentions during the fiscal year 1951*

Item	Total	Inspected and refused entry	Inspected and re- leased
Total.....	39,942	5,344	34,598
Foods.....	34,123	3,851	30,272
Vitamins and foods for special dietary use.....	125	42	83
Drugs and devices.....	5,477	1,385	4,092
Cosmetics, colors, and miscellaneous.....	217	66	151

In the 349 criminal actions terminated during the year, the fines paid, or assessed in cases pending on appeal, totaled \$171,060. The heaviest fine in a single case was \$9,000. In 56 actions the fines were \$1,000 or more. Jail sentences were imposed in 21 cases involving 22 individual defendants. The sentences ranged from 1 day to 9 years, and averaged 16 months. For 18 defendants the jail sentences were suspended and they were placed on probation.

Records of actions terminated in the Federal courts were published in 1,698 notices of judgment issued during the year.

Office of Vocational Rehabilitation

Contributing to Defense

DURING THE first year of America's intensified efforts to strengthen our defenses, the State-Federal system for vocational rehabilitation set a new record in the number of disabled men and women prepared for work and placed in useful occupations. That record—an increase of about 11 percent over the previous all-time high attained in 1950—is 66,193 Americans channeled into productive occupations suitable to their capacities.

This record number of rehabilitations comes at a time when the Office of Defense Mobilization and other agencies concerned with our manpower resources are looking to the Nation's handicapped for more workers to man defense industries and maintain the production levels essential to economic strength. It comes at a time when there is added urgency to reduce the financial burden of supporting disabled persons in unwanted idleness through public and private welfare programs and use their skills in gainful work. The importance of this record to defense mobilization is evident from the fact that the men and women rehabilitated last year add more than 100 million man-hours a year to the Nation's productive effort.

The significance of the contribution which the program for vocational rehabilitation is making to defense is shown by a study of the rehabilitation case loads of 10 States having 29 percent of the country's population. This study shows that on June 30 a total of 9,932 disabled persons were receiving training and other services in these States. Of this number, 1,998 or 20 percent were being prepared for occupations in which critical shortages exist.

To prepare disabled men and women for useful work and restore them to gainful employment, vocational rehabilitation is administered

by a partnership of the States with the Federal Government which has been serving the Nation's handicapped citizens for 31 years.

Rehabilitation means different things to different people. To some it means the maximum possible restoration of impaired physical functions. To some it means vocational training for a job. To still others it means placement in a job matched to the physical capacity of the individual. But to the Office of Vocational Rehabilitation—and as used throughout this report—the term has a broader meaning. In relation to the handicapped person who can be prepared for gainful employment, it means restoring him to the fullest physical, mental, social, vocational, and economic usefulness of which he is capable.

As a minimum, vocational rehabilitation provides medical and occupational evaluation, counseling and guidance, placement on a job, and finally a follow-up to ensure that the employment is successful. It includes physical restoration, vocational training, maintenance and transportation, and tools and licenses necessary to launch a successful career. Regardless of what combination of these services is provided, *vocational rehabilitation is not complete until the handicapped man or woman is successful in useful work.*

DEFENSE MANPOWER: A NEW CHALLENGE

The past year has brought new responsibilities and new opportunities to the vocational rehabilitation program for the Nation's handicapped. An increasing requirement for manpower to meet the needs of defense production gives greater urgency to the needs for rehabilitation throughout the country. It also affords greater opportunities to serve the disabled and help them secure suitable places in our country's economic life.

In meeting the challenge raised by the Nation's accelerated efforts to build military and economic strength, OVR is taking specific steps to help relieve manpower shortages in critical occupations and essential industries. One of these steps is to assist public rehabilitation agencies throughout the country channel rehabilitants into those occupations that are on the critical list. In this connection, OVR keeps State rehabilitation agencies advised as to the occupations and activities in which the greatest needs for workers exist.

To broaden employment opportunities for the handicapped as well as to support the defense effort, OVR is working continuously to inform employers and the general public of the contributions which the handicapped worker can make when allowed to work in competitive employment. The record of those rehabilitated by this program speaks for itself. It shows conclusively that rehabilitated workers can and do fill important defense jobs. It shows that they can relieve men and women needed for military services. It shows that rehabil-

itated men and women are doing work that is necessary for the support of the country's economy. Briefly, here is the record today.

Many of the 66,193 men and women rehabilitated last year are now working in occupations wherein shortages of trained personnel are beginning to be felt. It is estimated that more than 10,000 have entered the skilled trades and are serving in such essential occupations as machinists, electricians, welders, and tool and die makers. More than 6,000 are farmers or agricultural workers. About 1,400 are in the various phases of teaching, and many of these are helping relieve the severe teacher shortage for the primary grades. At least 260 have qualified professionally as engineers. An estimated 1,400 have gone into the field of medicine and related work in hospitals, laboratories, and similar facilities.

OPERATION KNOXVILLE

In some instances OVR personnel are working directly with State agencies to assist them in developing and carrying out defense related programs. An outstanding example of this type of cooperation is "Operation Knoxville," a pilot project launched by the Tennessee Division of Vocational Rehabilitation. This is a program wherein the entire community was organized to increase the manpower available to the rapidly expanding defense industries in the area through a better use of the handicapped. It has a secondary objective of reducing the cost of public welfare in the community by making it possible for handicapped persons who have been receiving public assistance to earn their own living.

"Operation Knoxville" is a permanent program supported by the community's medical profession, labor unions, industrial and business groups, voluntary associations, press, civic associations, social agencies, and public institutions. OVR staff members assisted in organizing this program and are now encouraging the application of its methods elsewhere. The program already has resulted in the rehabilitation of a substantial number of disabled men and women, as well as in the selective placement of other handicapped persons by the local office of the public employment service.

Highlights of 1951

In addition to the 66,193 persons rehabilitated during 1951, 14,435 men and women who had been served by the program were employed but still under observation at the end of the fiscal year to ensure that their placements will be successful. Another 12,948 were ready for placement in jobs.

The stress which OVR is placing on the rehabilitation of the disabled to provide manpower for the defense program received important national recognition when the Office of Defense Mobilization named a task force on the handicapped. This task force, with consultative assistance from the Director of OVR, is launching an exhaustive study of the entire subject of rehabilitating and employing handicapped persons to increase the supply of manpower for defense activities.

The responsibility of providing liaison between State rehabilitation operations and the defense agencies has been assumed by OVR. Much of the coordination of planning in this field is carried on through the Defense Planning Committee organized by the States' Vocational Rehabilitation Council. An advisory body to OVR, the council consists of the State directors of vocational rehabilitation. Its Defense Planning Committee assists State rehabilitation agencies in developing practical methods for channeling increased numbers of rehabilitants into defense production.

Particularly significant is the sustained effort of OVR to expand employment opportunities for handicapped persons. During the past year strong endorsements of hiring the physically handicapped were obtained by this Office from employer groups and labor organizations. These agreements will open new jobs for handicapped men and women. Other efforts to increase work opportunities for the handicapped are treated in greater detail elsewhere in this report.

These Services Get Results

There are nine major services provided under the vocational rehabilitation program. Ultimate rehabilitation is achieved through a carefully developed combination of these services arranged to fit the individual need of every person who is served.

A medical examination is given to each individual to learn the extent of disability, establish the degree of work capacity, and help determine his eligibility. Medical, surgical, psychiatric, and hospital services are provided to remove or reduce the disability. During the past year, for example, medical, psychiatric, or surgical services were purchased for 22,003 persons. Hospitalization and convalescent home-care services were purchased for 14,358 persons under this program. Artificial limbs and other prosthetic appliances are furnished when necessary.

Training in schools, by correspondence courses, or on an actual job is provided to develop occupational skills. Maintenance and transportation may be furnished during medical treatment or vocational training. Tools, equipment, or licenses are provided if these are necessary to give the rehabilitant a fair start in his career.

Tying all these services together into an integrated plan is counseling and guidance, and the psychological testing which aids in the selection of the proper vocational objective. Placement in a job or establishment in a small business is one of the important services provided in the rehabilitation process. The final step is the follow-up to insure that the rehabilitated man or woman is successful and that the employer is satisfied with the placement.

Some disabled men and women require all nine of these services, while others need only a few. However, as more of the severely disabled are being served by this program, new types of the medical and other services required for physical restoration are being furnished in an increasing number of cases.

The function of counseling is assuming greater importance because of the fact that larger numbers of seriously disabled are now being reached. Nearly every case illustrates the need for expert counseling. The paraplegic who is fearful of leaving the sheltered environment of the hospital; the girl whose facial disfigurement leads her to shut herself off from the world outside her home; the blind man whose over-protective family has encouraged his idleness and helplessness—these are examples of the individuals whose problems call for the specialized advice and guidance which are a part of rehabilitation counseling.

Bringing these disabled men and women to the point where they are willing to try to start the rehabilitation process is an important duty of the counselor. But an equally important part of his work relates to achieving support for this program from the community, encouraging new services and facilities, and developing relationships with employer and labor groups which will make placement possible.

MORE HELP FOR THE SEVERELY DISABLED

On August 28, 1950, amendments to the Social Security Act, placing new obligations on the vocational rehabilitation program, became law. This legislation broadens the term "public assistance" to include the permanently and totally disabled. Both OVR and the Bureau of Public Assistance recognize that many persons considered to be permanently and totally disabled under this law can in some instances be rehabilitated. They are in full agreement that every effort should be made to rehabilitate persons in this category whenever possible.

That this attitude reflects the intent of Congress is indicated by the following excerpt from the report of the Joint Conference Committee considering the legislation: "* * * It is recognized that some of the individuals added (to public assistance case loads) possibly could be returned to a condition of self-support."

The staffs of OVR, the Bureau of Public Assistance, and the Public Health Service jointly have developed procedures for coordinating

their respective programs in this new area of common interest. Rehabilitation and public welfare agencies are working together and are combining rehabilitation, medical, and social work competencies to make integrated evaluations of possibilities for rehabilitation. In some States public health services are taking an important part in these evaluations. The fact that OVR, the Bureau of Public Assistance, and the Public Health Service are constituents of the same major agency of Government—the Federal Security Agency—has contributed materially to the rapidity with which this joint effort has advanced.

The team approach to rehabilitation, first employed to serve the needs of amputees, is finding wider application among other cases of severe disability. Under this concept the problems of rehabilitation are approached by a team consisting of the rehabilitation counselor, medical specialists, a social worker, any other specialist who may be concerned and the disabled man or woman being served.

The past year saw considerable progress in the establishment of clinics for the diagnosis, evaluation, and vocational planning for amputees. Such clinics are now being operated with marked success in a number of States.

Under the Randolph-Sheppard Act which authorizes blind persons to operate vending stands in Federal buildings, some 600 vending stands are now being successfully operated by blind men and women. These vending stands provide valuable services to the public.

As a result of the impetus from the vending stand program in Federal buildings, most of the State agencies have developed excellent programs of their own. There are between 800 and 1,000 vending stands now operating in State, county, municipal, and private locations. Seventeen States and the Territory of Hawaii have passed legislation similar to the Federal act authorizing blind persons to operate vending stands in public buildings.

In addition to providing good incomes to more than 1,500 blind men and women, the vending stand program is in effect a show window through which the capabilities of blind persons are displayed to the public every day. The expansion of this program with the resulting employment of thousands of additional blind persons can be made possible by adequate financial support by the Federal and State Governments for the establishment of new enterprises. The cooperation of the custodians of Federal, State, and private buildings is also required.

REHABILITATION AND ADJUSTMENT CENTERS

OVR has long recognized the need for more rehabilitation centers where a variety of specialized services can be provided for the rehabili-

tation of the severely handicapped. These centers can be publicly or privately operated; both kinds are making tremendous contributions to the rehabilitation program.

The States' Vocational Rehabilitation Council, in cooperation with OVR, published in October the results of its 2-year study of rehabilitation centers. This report to the council, developed by its Committee on Rehabilitation Centers, covered the need for these facilities; the services they provide; and their organization, administration, and financing. It will be of considerable aid in the future establishment of such centers. Since publication of the last annual report, several States have passed legislation providing for the establishment of rehabilitation centers and five others are considering such legislation.

Rehabilitation of blind persons can be facilitated greatly by the use of adjustment centers wherein such requirements of daily living as travel, selection and use of apparel, eating in restaurants, shopping, and the like can be taught effectively. OVR made a notable contribution to the development of adjustment centers for the blind by working with their representatives and those of the American Foundation for the Blind to appraise and codify adjustment center procedures. The publication of the findings of the Workshop on Adjustment Centers for the Blind, sponsored jointly by this Office and the foundation, is the most complete treatment of this subject yet developed.

SERVING INDIVIDUALS WITH SPECIAL PROBLEMS

In recognition of the increasing proportion of older persons in the population, as well as the contribution which they could make to the defense effort, OVR is devoting particular attention to the problems related to the rehabilitation of handicapped men and women in the upper age brackets. This Office participated in the National Conference on Aging sponsored by the Federal Security Agency. OVR also plans to continue the development of policies to aid the disabled among older persons by further study carried out in cooperation with the University of Michigan.

As the age level of the veteran population rises, the incidence of non-service connected disabilities among this group also increases. Many veterans with nonservice connected disabilities are being served by the program, and OVR is now concerned with the development of special procedures for the rehabilitation of the severely disabled in this category. Under study is a pilot plan in the McGuire Veterans' Hospital in Virginia to rehabilitate paraplegics, which may set the national pattern for all veterans' installations in meeting the problem of patients not entitled to Veterans Administration rehabilitation.

The benefit of practical experience in the relatively new field of rehabilitating the mentally handicapped was made available by OVR

to public rehabilitation agencies. Current techniques and doctrine in this area of rehabilitation are treated in an OVR publication entitled "Vocational Rehabilitation of the Mentally Retarded." More than 8,000 copies of this important publication were distributed to professional workers in the field during the past year.

CREATING OPPORTUNITIES FOR THE HANDICAPPED

Several methods of expanding job opportunities for the Nation's substantially handicapped are being applied to help meet manpower needs for defense production and provide better service to larger numbers of disabled people.

Working through the Office of Education and the American Vocational Association, OVR is endeavoring to promote a wider acceptance of severely disabled students in public vocational schools. An important part of this effort is devoted to encouraging the instruction of blind persons in public vocational schools. In cooperation with the Office of Education, OVR distributed an Instructional Guide for the Use of Vocational Schools Providing Training for Blind Persons.

To further demonstrate the practicability of training blind persons in the regular classes of these schools, a pilot program was begun in the Milwaukee vocational and adult schools. Under this program, developed in cooperation with the State agency for the blind, students who are blind receive training in eight separate trades.

OVR conducted two refresher courses for blind industrial employment counselors to assist them in improving their methods of obtaining employment in industry for blind persons. These were attended by counselors from virtually all parts of the country. The counselors who participated are themselves blind and thus have the best possible appreciation of the problems relating to placement of blind men and women in competitive employment.

Whenever appropriate, the facilities of other Government agencies are being used by the State-Federal system for vocational rehabilitation in expanding job opportunities for the handicapped. An effective working relationship is maintained with the United States Employment Service of the Department of Labor, and State rehabilitation agencies are encouraged to work more closely with the public employment services in their States. When they are ready for placement, many persons served by this program are registered with the public employment services so that maximum use can be made of these facilities in locating jobs.

The Department of Commerce, which maintains offices throughout the country available to assist in the establishment of small business enterprises, is aiding in the rehabilitation program. OVR cooperates

with this agency in assisting State rehabilitation services to obtain guidance in helping rehabilitants set up independent business.

On behalf of OVR and other constituent agencies concerned with the welfare of the handicapped, the Federal Security Administrator is a Federal associate member of the President's Committee on National Employ the Physically Handicapped Week. OVR works closely throughout the year with the staff of the President's Committee in the development of plans for bringing the needs of the handicapped before the American public and familiarizing employers with the advantages of employing handicapped men and women.

To insure that the handicapped have fair opportunities for Federal employment, OVR has undertaken with the Civil Service Commission a long-range program of acquainting Federal appointing officers with the capabilities of persons with various types of disabilities. As a result of joint OVR and Civil Service Commission studies to equalize civil service tests for deaf persons, large groups of individuals with hearing loss have been able to take civil service examinations with the assistance of a sign-language interpreter supplied by this program.

In its unending opposition to discrimination against handicapped persons in employment, OVR vigorously and effectively protested proposed revisions by the Interstate Commerce Commission of regulations which would have prevented persons with hearing loss from driving in interstate commerce. Adoption of the proposed changes would have had the effect of denying the right to work to countless experienced drivers and many otherwise qualified veterans who sustained hearing loss while in the Armed Forces.

These activities to expand the opportunities for the employment of handicapped persons are of lasting benefit not only to those who are rehabilitated under this program but to the handicapped population in general. Betterments in the use of our handicapped manpower are as well positive contributions to the defense effort.

RESEARCH

An important function of OVR in assisting the States to meet the needs of the handicapped is participation in research and the dissemination of research findings to operating agencies in the field. Useful information relating to vocational rehabilitation, from any reliable source, is made available to State rehabilitation agencies. Whenever possible, OVR collaborates with other Government agencies and professional or voluntary associations in the conduct of research projects.

One such cooperative research undertaking was carried out jointly with the Social Security Administration, the Public Health Service, and the Bureau of the Census. This was a study of the prevalence of

disability based on a sample of the civilian noninstitutional population, aged 14-64. A significant contribution to information used in planning rehabilitation and other social programs, its findings were published in November.

Planned, in process, or completed during the year by State rehabilitation agencies were studies in the fields of adjustment of blind persons for daily living, rehabilitating the tuberculous, and evaluating diagnostic and other services provided to a group of epileptics.

Rehabilitation Means Cooperation

Day-to-day relationships with the States are maintained by the Director and the two operating divisions of the Office of Vocational Rehabilitation. In the Division of Rehabilitation Standards are three branches—guidance, training, and placement; physical restoration; and services for the blind. The Division of Administrative Standards works through two branches: State administrative planning and survey, and fiscal and statistical analysis. Under the Director are internal administrative and personnel offices and an Information Service to promote public understanding of the program nationally. Assisting the Director is a regional representative in each of the 10 regional offices of the Federal Security Agency.

OVR has the mission of providing leadership and guidance to the States in carrying out their rehabilitation programs. An important part of this responsibility is the administration of grants-in-aid. The actual function of supplying the services of rehabilitation—except in the District of Columbia—rests with the States and Territories. The District of Columbia Rehabilitation Service is administered by this Office.

Assistance provided to the States covers the entire range of services comprising the broad program of vocational rehabilitation. It includes help in the preparation of legislation; advice in the fields of medicine, psychology, and social work; aid with public information programs; assistance in establishing relationships with other interested agencies such as the public employment services; and over-all administration of programs and planning.

State legislation to improve rehabilitation facilities, drawn up in consultation with this Office, has been mentioned earlier in this report. In Oklahoma, OVR assisted the State director in planning and establishing a rehabilitation center at Okmulgee in cooperation with Oklahoma Agricultural and Mechanical College. In Alabama, OVR gave technical assistance in evaluating the program of the comprehensive rehabilitation center operated by Tuskegee Institute. OVR staff

members are also participating in planning for the further development of this center which serves a number of Southern States.

Improved guides for program evaluation were developed in the areas of rehabilitation training, case-work manuals and case recording, occupational information, psychological services, and employment of the severely disabled OVR developed and put into effect new and better methods for periodically reviewing State agency functioning in determinations of eligibility for service, provision of service, and general administration.

The formal agreements upon which the State-Federal partnership for vocational rehabilitation is based are the State plans which set forth the programs of the various State rehabilitation agencies. OVR has the responsibility of insuring that these plans meet acceptable professional standards and conform to Federal and State laws so that the funds appropriated by Congress for the purpose may be granted to the States. A total of 27 recodified State plans were processed and approved by this Office during the past fiscal year.

Constant assistance is given the States in reviewing and amending their plans in order that their programs can be improved within the framework of the legislation which governs them.

OVR maintains close relationships with many unions and labor organizations, both to assure adequate rehabilitation services to their disabled members and to enlist their cooperation in obtaining employment for other men and women served by this program. More than 50 voluntary associations collaborate with OVR in research, planning, and other functions that sustain and improve vocational rehabilitation.

REHABILITATION SERVICE IN THE DISTRICT OF COLUMBIA

During the past year the District of Columbia Rehabilitation Service, which is administered directly by OVR, rehabilitated into successful employment 379 men and women. The case load totaled 2,421 disabled persons.

Jointly with the Public Health Service and Gallinger Municipal Hospital, the Rehabilitation Service participated in establishing a Physical Medicine and Rehabilitation Department at the hospital. A leading authority on physical medicine was assigned by the Public Health Service as medical officer, and the Rehabilitation Service assigned to the staff two occupational therapists and a counselor. The Rehabilitation Service also assumed the cost of the occupational therapy equipment required for this program.

The Gallinger Hospital program makes it possible for the counselor to see prospective beneficiaries of rehabilitation services while they are still under hospital care. During the 8 months in which the pro-

gram has been in operation, the counselor has handled a total of 93 cases. Five of these already have been rehabilitated.

The Rehabilitation Service took the lead in establishing a community-wide Rehabilitation Planning Conference to assist in improving rehabilitation services available to the disabled men and women of the District of Columbia. Better use of existing medical and psychiatric services within the community are being made by the Rehabilitation Service as a result of improvements in organization and methods during the past year.

EXPORTING AN AMERICAN PHILOSOPHY

Never before have the relations of the United States with other nations of the free world been of greater importance than they are today. Never before have greater efforts been made to assist friendly nations and potential allies to strengthen their economies and their governments. Much is being done in this connection without large expenditures. The United States is showing friendly neighbors how to help themselves in many fields of endeavor. This program is an important adjunct to our national security.

In the field of rehabilitation, OVR is taking a leading part in disseminating American "know-how" to nations in all parts of the world. Much of this work is carried on through the United Nations. As mentioned in the preceding annual report, OVR prepared basic statements on rehabilitation used by the United States delegation to the United Nations Economic and Social Council. Largely as a result of these statements, the Council adopted a measure known as the Bolivian-Canadian-United States Resolution on Social Rehabilitation of the Disabled.

As in the preceding year, OVR again prepared basic statements of program plans and policy in the field of rehabilitation for use of the United States delegation to the seventh session of the United Nations Social Commission, held in Geneva, Switzerland, in March and April. These contributed much to the establishment of a rehabilitation unit in the United Nations secretariat. This unit was fully staffed by the close of the fiscal year.

OVR is responsible for planning and supervising the programs of study in the field of rehabilitation for the United Nations fellows and scholars in the United States. Since this program was initiated in 1948, this Office has provided programs for 25 fellows from 12 nations. Four of these came in 1951. In planning and carrying out these programs, OVR works closely with voluntary agencies such as the International Society for the Welfare of Cripples, the Overseas Foundation for the Blind, and others.

The technical assistance programs established under Point IV of the President's program for helping underdeveloped nations through technical and professional guidance are administered by the Technical Cooperation Administration of the Department of State. The Federal Security Agency, through OVR, is responsible for planning and supervising the assistance rendered in the field of rehabilitation. Plans are now being developed by OVR to send consultants to assist Bolivia, Brazil, and Mexico to improve rehabilitation services in these countries. In the future this program will provide for training of foreign technicians in the United States under the direction of OVR.

Under the auspices of the Economic Cooperation Administration, professional men and women from foreign nations visit the United States to study programs in America. During the past year a team of French experts visited this country to study our rehabilitation program, and at least one other such team is expected next year.

In addition to these formal visits by study teams, OVR received many foreign visitors under such auspices as the cultural exchange programs of the Departments of State and Defense; the State Department Fellowship and Specialist Program; and programs of numerous private organizations. OVR has assisted 18 of these foreign visitors in studying first-hand the policies and methods of vocational rehabilitation in the United States since publication of the last report.

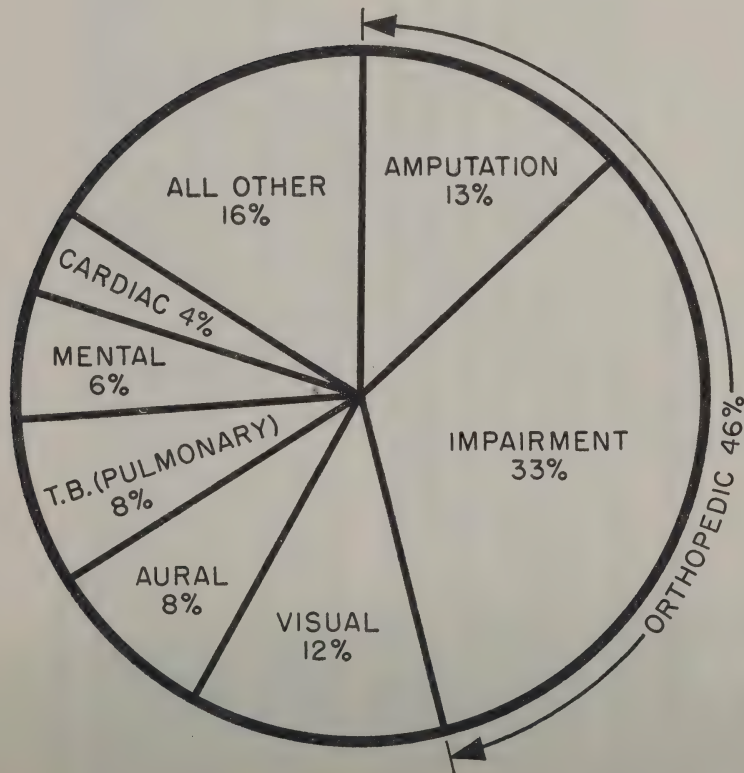
The Handicapped People We Serve

The State-Federal program for vocational rehabilitation serves men and women of all ages within the span of normal employment. Virtually every type and degree of chronic disabling defect is found among those accepted for service. Men and women who have been rehabilitated under this program are placed in all the major occupational classifications. The chart below shows the distribution of disabilities and occupational groups of persons rehabilitated during the 5-year period 1946-50.

During this 5-year period, 70 percent of the 250,734 persons who were rehabilitated were men. However, the proportion of women rehabilitated is increasing; it rose from 24 percent in 1946 to 33 percent last year.

About three-fourths of the quarter of a million rehabilitants were not employed when they were accepted for services, and 13 percent of them had never worked. The remaining fourth were employed in jobs that were temporary or unsafe in view of their disabilities or otherwise unsuitable.

DISABILITIES



MAJOR OCCUPATIONS

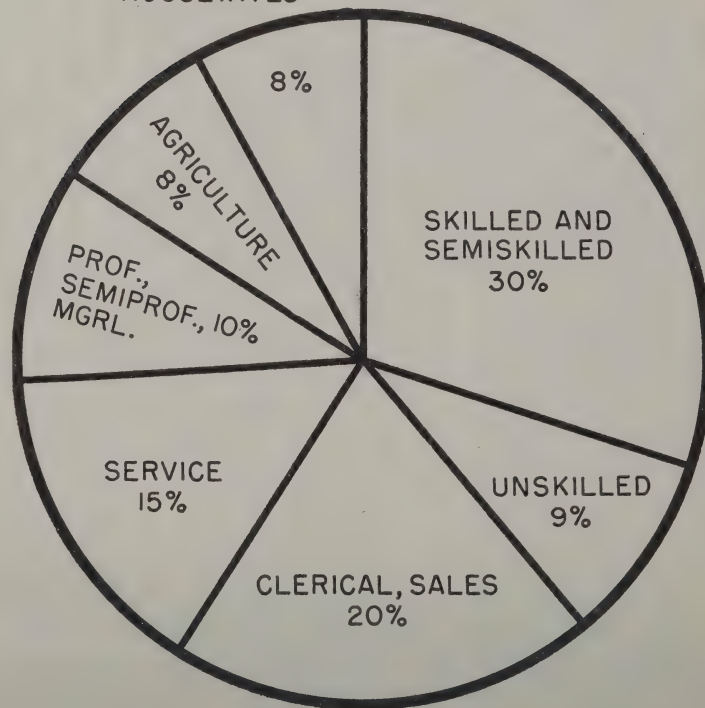
FAMILY WORKERS,
HOUSEWIVES

Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by type of disability at acceptance and by major occupational group at closure, fiscal years 1946-50.

That the majority of those rehabilitated during the 1951 fiscal year are family heads is indicated by the fact that 2 out of 5 of them had 1 or more dependents. However, 7 out of 10 were dependent upon sources other than wages for their support. Nearly half of them were supported by their families, and about 1 in 10 was receiving public assistance. Less than 1 in 10 was receiving any type of insurance benefit at time of acceptance.

On the basis of the distribution of ages among persons rehabilitated in 1950, it is estimated that 24 percent of those rehabilitated during the past fiscal year were 45 years of age or older. About 39 percent of the population 15 years of age and over falls into this age group. Moreover, about 64 percent of the disabled persons 14 to 64 years of age are 45 and over.¹ These figures indicate that greater emphasis must be placed upon the rehabilitation of older persons with physical handicaps.

PAYING RETURNS IN HUMAN BETTERMENT

There are no exact figures on the costs to tax-supported and private social agencies for financial assistance, made necessary by disablement, to countless American families. There are no terms which the handicapped themselves can apply in defining the toll exacted from them by reason of their impairments. These things—the real effects of physical and mental disablement upon society—do not submit to statistical measurement. How, then, can we assess the value of the talent and the manpower lost to this Nation as a consequence of physical and mental disabilities?

One indication is given by the number of handicapped Americans who could benefit from vocational rehabilitation. It is estimated that about 2 million of our disabled people of working age could be made wholly or partially self-supporting through these services. Every year an estimated 250,000 persons, disabled by chronic illness, congenital defects, or accidents, come to need vocational rehabilitation in order to be self-supporting. These estimates include only those persons whose ages and disabilities are such that vocational rehabilitation could benefit them. The foregoing figures—although only approximations—suggest the magnitude of the problem of serious disablement in the United States.

The economics of rehabilitation tell an impressive story. Most rehabilitants had no earnings whatever at the time they began to receive the services of vocational rehabilitation. Those who were earning wages in any type of work were together earning at a rate

¹ This estimate is based on a special study of disability in the civilian noninstitutional population 14–64 years of age, which shows that 63.9 percent of those disabled for 7 months or more were between the ages of 45 and 64.

of only about 18 million dollars a year. After rehabilitation, all rehabilitants placed in gainful work (other than on farms) were earning at an estimated rate of 100 million dollars a year in jobs suited to their individual capacities. It is estimated that, at this rate, by 1955 they will have returned to the Federal Treasury in income taxes the entire 21 million dollars spent last year on the rehabilitation program by the Federal Government. Thus, in 4 years the total Federal investment in these handicapped citizens will be repaid, after which their tax payments will be available wholly for other Government obligations.

It has been pointed out many times that during their working lives, men and women rehabilitated under this program will pay back to the Federal Government in income taxes more than \$10 for every Federal dollar spent on their rehabilitation. Few enterprises can show such a high rate of return on the capital invested.

Rehabilitating a handicapped man or woman is a one-time expenditure. During the past fiscal year the cost of operating the entire program for vocational rehabilitation was \$457 per rehabilitant. Without rehabilitation, it is often necessary for a handicapped person and those dependent upon him to be supported by a public welfare program. During the fiscal year the average annual payment for aid to dependent children—a category of public assistance often needed when disablement prevents employment of a parent—was \$863 per family. In many cases this is an expense that continues for several years. In roughly one-fourth of the families receiving this type of public assistance the father is physically incapacitated.

The expense of maintaining a disabled person in a hospital for an extended period of time also far exceeds the per case cost of rehabilitation. For example, it would cost more than \$5,000 to keep a paraplegic hospitalized for 1 year without rehabilitation, even if no extensive therapy were required.

These facts are the simple arithmetic of rehabilitation. They are the hard dollars-and-cents realities which establish the State-Federal program for vocational rehabilitation on a sound economic basis.

Add to these monetary factors the humanitarian considerations to the individual; imagine what it means to the disabled man or woman to be freed from the despair of dependency and given the security of worth-while employment. Add the benefits which accrue to the family of the disabled breadwinner—and to society as a whole. Add the value of new skills and new talents thus made available to the employer. And to all this, add the immense contribution which many thousands of rehabilitants are making to our national security by producing the goods and services which go into advancing our living standard and our strength.

Goals for the Future

Thirty-one years of service to the severely disabled and handicapped men and women of America have proven the worth of the State-Federal program for vocational rehabilitation. During the first 23 years of its existence, this program operated under limited legislative authority that made no specific provisions for physical restoration, which today is one of the vital services rendered to many thousands of Americans. In 1943 the program was strengthened by legislation providing for the present complete range of services, including medical, psychiatric, and hospital care.

The 402,000 men and women rehabilitated since 1943 exceed by a wide margin the number provided with lesser services—210,000—during the preceding 23 years of the program's operation. Thus the history of public vocational rehabilitation in the United States is divided into two major periods. Today we are looking forward to a third major period, yet in the future. That new period would begin when rehabilitation services are available to every American who needs them.

It has been pointed out that about a quarter of a million Americans each year become disabled by accidents, disease, or congenital defects to such a degree that their disablements constitute employment handicaps. There are approximately 2 million men and women who need the services of vocational rehabilitation to contribute their share to the Nation's work and enjoy all the benefits that go with employment under our way of life. The goal of the State-Federal program for vocational rehabilitation is to serve *all* these handicapped persons.

Today we have the experience, the organizational structure, and the medical knowledge to expand greatly the services of vocational rehabilitation. Lacking are two major requirements. One is a broadened legislative base that would enable the program to give still better service to still more people. The other is greater financial support—the dollars which are returned tenfold to the Federal Treasury in the form of increased tax revenues from this Federal investment in human welfare.

Relatively little can be accomplished in rehabilitating the severely disabled without bringing to them the specialized services of modern rehabilitation centers. To be rendered employable, most blind persons need assistance in learning to meet the requirements of daily living. To provide this type of service, more adjustment centers for the blind are essential. Today rehabilitation and adjustment centers are few and far between and unavailable to most of the disabled men and women who could be benefited through their comprehensive services. Federal financial participation in the establishment of such centers is

urgently needed to encourage their development by public and private agencies throughout the country.

To serve those persons whose disabilities are so severe that they cannot enter competitive employment, many sheltered workshops are needed. The few sheltered workshops now in existence have made it possible for the severely disabled which they employ to become wholly or partially self-supporting. Some of these workshops have established splendid records as subcontractors producing materials for defense. Federal financial participation to encourage the establishment of an adequate number of such workshops would make it possible for many otherwise unemployable men and women to do useful work for pay.

Also vital to the rehabilitation of many of the severely disabled are opportunities for self-employment in small-business enterprises, including those suitable for home-bound persons. The present Business Enterprises Program is limited by law to small-business enterprises for rehabilitation of the blind. It excludes other severely disabled men and women. In addition, there is a need to expand the provisions of the Randolph-Sheppard Act to increase the employment opportunities for blind persons as concession stand operators on Federal property and other locations.

Essential to the success of any broadened program for vocational rehabilitation is an adequate supply of highly trained personnel to staff its specialized functions. The need for a training program in this field is critical not only for expanding the program but for meeting existing needs as well. Without professionally qualified personnel in sufficient number, thousands of our disabled citizens will be denied the opportunities held out by dramatic developments in rehabilitation techniques. The need for trained personnel to administer the program is heightened by the necessity for preparing larger numbers of our disabled citizens to meet the requirements of defense production. Adequate numbers of qualified rehabilitation specialists can be assured only by the establishment of training programs set up to meet this need.

These and other needs of the vocational rehabilitation program would be met by provisions along the lines of those embodied in S. 1202 now pending in Congress. Indeed, this proposed legislation would go far in enabling the State-Federal program to attain its goal of extending services to every disabled American who needs them.

In addition, expansion of research to find ways of increasing the speed and efficiency of rehabilitation would pay for itself many times over. There is an acute need for more research to adapt new devel-

opments in medicine, psychology, and related fields to the rehabilitation of the disabled. Spectacular achievements in rehabilitation centers give promise of even greater advances through sustained research in this specialized field.

Broadening the State-Federal program for vocational rehabilitation would be a contribution to the military security, the economic strength, and the social betterment of our country.

Table 1.—Total referrals and cases, by agency, fiscal year 1951

[Corrected to August 1951]

Agency ¹	Total	Number closed during fiscal year 1951					Number on rolls, June 30, 1951	
		From active case roll				From referred status ⁴	Active case roll ⁵	In referred status ⁶
		Em- ployed (re- habili- tated)	Unem- ployed ²	Trans- ferred to an- other agency	Other rea- sons ³			
Total.....	387,395	66,193	4,733	624	20,426	64,247	139,567	91,605
Alabama.....	10,642	1,733	127	10	317	466	4,636	3,353
Arizona.....	1,480	215	39	3	91	317	443	372
Arkansas.....	7,109	1,018	44	10	478	1,613	2,511	1,435
California.....	34,640	5,049	638	19	1,838	8,731	9,483	8,882
Colorado:								
General.....	2,538	505	5	57	155	414	855	547
Blind.....	257	38	0	0	14	14	74	117
Connecticut:								
General.....	5,683	1,178	129	17	307	541	2,915	596
Blind.....	274	60	26	0	4	25	102	57
Delaware:								
General.....	1,688	433	52	5	109	244	709	136
Blind.....	104	26	11	3	2	8	46	7 8
District of Columbia.....	2,421	379	133	12	292	537	857	211
Florida:								
General.....	8,797	1,690	192	30	488	2,011	3,117	1,269
Blind.....	3,223	237	87	7	76	1,384	626	806
Georgia.....	24,634	2,982	95	13	732	2,792	7,328	10,692
Hawaii:								
General.....	1,913	182	79	4	20	139	592	897
Blind.....	172	31	0	0	29	48	53	7 11
Idaho:								
General.....	1,431	171	14	7	10	352	234	643
Blind.....	111	15	1	0	7	24	45	19
Illinois.....	14,324	3,931	167	17	1,158	1,431	6,242	1,378
Indiana:								
General.....	5,494	1,063	54	24	225	380	3,176	572
Blind.....	469	81	7	0	27	34	266	54
Iowa:								
General.....	5,009	926	39	0	451	656	1,700	1,237
Blind.....	239	28	0	0	7	118	63	23
Kansas:								
General.....	3,707	690	37	20	151	748	1,167	894
Blind.....	290	68	10	3	13	47	100	49
Kentucky.....	5,827	768	21	2	417	1,830	1,508	1,281
Louisiana:								
General.....	6,963	1,300	36	14	224	770	3,246	1,373
Blind.....	1,023	90	13	1	45	191	307	376
Maine:								
General.....	1,903	255	26	4	132	460	554	472
Blind.....	170	19	5	1	5	40	70	30
Maryland.....	6,459	1,023	51	6	317	625	2,848	1,589
Massachusetts ⁴	5,195	665	27	2	136	655	1,681	2,029
Michigan:								
General.....	21,482	5,488	540	37	467	2,522	8,633	3,795
Blind.....	722	166	20	9	64	105	300	58
Minnesota:								
General.....	5,934	652	55	19	162	1,171	2,401	1,474
Blind.....	754	127	0	2	41	181	287	116
Mississippi:								
General.....	4,741	900	82	6	94	1,169	1,260	1,230
Blind.....	813	132	38	5	47	177	334	80
Missouri:								
General.....	6,150	1,190	51	11	364	824	2,705	1,005
Blind.....	703	131	21	3	10	80	339	119
Montana:								
General.....	2,206	372	18	6	93	547	754	416
Blind.....	289	14	0	2	13	108	78	74
Nebraska:								
General.....	1,878	483	35	7	27	169	915	242
Blind.....	303	36	3	0	12	26	98	128
Nevada.....	420	49	0	0	38	114	147	72
New Hampshire:								
General.....	796	110	17	5	80	181	253	150
Blind.....	85	10	0	0	13	13	42	7

See footnotes at end of table.

Table 1.—Total referrals and cases, by agency, fiscal year 1951—Continued

[Corrected to August 1951]

Agency ¹	Total	Number closed during fiscal year 1951					Number on rolls June 30, 1951	
		From active case roll				From re- ferred status ⁴		
		Em- ployed (re- habili- tated)	Unem- ployed ²	Trans- ferred to an- other agency	Other rea- sons ³		Active case roll ⁵	In re- ferred status ⁶
New Jersey:								
General.....	4,715	1,305	125	12	152	595	1,931	595
Blind.....	829	132	88	8	77	219	249	56
New Mexico:								
General.....	1,284	190	6	1	37	205	446	399
Blind.....	152	17	4	1	12	39	48	31
New York:								
General.....	20,641	4,038	344	10	2,919	2,713	8,611	2,006
Blind.....	1,559	330	39	1	95	146	539	409
North Carolina:								
General.....	10,053	2,178	53	3	447	1,217	4,106	2,049
Blind.....	2,157	308	16	4	118	543	935	233
North Dakota:	1,526	207	8	3	40	260	442	566
Ohio:								
General.....	6,534	1,276	45	9	248	1,222	2,154	1,580
Blind.....	1,333	173	10	5	56	262	611	216
Oklahoma:	6,889	1,200	24	8	417	400	3,668	1,172
Oregon:								
General.....	5,752	541	52	19	223	1,238	1,668	2,011
Blind.....	372	38	1	4	26	147	108	48
Pennsylvania:								
General.....	18,823	3,485	91	19	1,209	3,724	5,644	4,651
Blind.....	3,156	280	26	5	63	688	877	1,217
Puerto Rico:	4,634	650	73	0	195	826	1,373	1,517
Rhode Island:								
General.....	1,679	268	49	3	44	243	736	336
Blind.....	173	26	0	5	6	2	125	9
South Carolina:								
General.....	8,879	1,782	57	16	291	1,170	3,085	2,478
Blind.....	492	67	17	3	40	89	133	143
South Dakota:								
General.....	897	122	1	3	16	59	464	232
Blind.....	131	27	0	0	12	23	45	24
Tennessee:								
General.....	7,886	1,987	67	8	259	1,400	2,548	1,617
Blind.....	1,062	92	18	4	61	207	390	290
Texas:								
General.....	16,009	2,032	74	19	446	1,908	6,539	4,991
Blind.....	2,660	255	23	1	95	1,047	516	723
Utah:	2,131	417	27	2	76	351	767	491
Vermont:								
General.....	1,046	190	16	4	58	183	395	200
Blind.....	129	17	4	0	2	10	62	34
Virginia:								
General.....	11,354	1,449	58	11	1,153	2,758	3,353	2,572
Blind.....	307	28	30	1	16	125	74	733
Washington:								
General.....	6,539	963	66	7	172	1,092	2,226	2,013
Blind.....	288	53	2	1	12	16	171	33
West Virginia:	15,089	1,801	46	12	1,266	2,849	4,616	4,499
Wisconsin:								
General.....	7,064	1,317	119	6	239	944	3,289	1,150
Blind.....	426	53	1	0	10	32	188	142
Wyoming:	1,280	190	8	3	16	263	335	465

¹ In States which have 2 agencies, the agency under the State board of vocational education is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind".

² Closed after rehabilitation plan was agreed upon and approved by supervising official; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

³ Closed following acceptance during process of counseling or prior to initiation of rehabilitation plan, because of indifference of client, probable increase in degree of disability of client, loss of contact with client, etc.

⁴ Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

⁵ In process of rehabilitation on June 30, 1951.

⁶ Eligibility for rehabilitation not determined.

⁷ Adjusted.

⁸ Rehabilitation program of the Massachusetts Division of the Blind not in operation.

Table 2.—Total expenditures from Federal and State funds for vocational rehabilitation by State boards of vocational education, fiscal year 1951¹

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Adminis- tration	Vocational guidance and placement services	Purchased services
United States, total.....	\$27,262,616	\$18,720,726	\$8,541,890	\$1,557,862	\$8,643,714	\$17,061,040
Alabama.....	827,411	530,811	296,600	31,937	202,274	593,200
Arizona.....	106,144	74,031	32,113	7,204	34,708	64,232
Arkansas.....	425,338	298,847	126,491	23,544	148,812	252,982
California.....	2,311,906	1,635,823	676,083	93,134	862,876	1,355,896
Colorado.....	171,773	129,591	42,182	10,120	77,290	84,363
Connecticut.....	468,699	347,826	120,873	35,577	191,376	241,746
Delaware.....	177,628	124,069	53,559	13,673	56,837	107,118
Florida.....	748,834	505,913	242,921	30,173	232,819	485,842
Georgia.....	1,407,645	958,039	449,606	69,557	438,876	899,212
Idaho.....	61,057	41,719	19,338	2,910	19,471	38,676
Illinois.....	1,713,832	1,141,090	572,742	127,710	440,637	1,145,485
Indiana.....	484,493	319,465	165,028	31,184	123,253	330,056
Iowa.....	332,877	241,944	90,933	29,863	121,148	181,866
Kansas.....	271,936	183,223	88,713	15,417	79,093	177,426
Kentucky.....	249,690	181,886	67,804	22,091	91,991	135,608
Louisiana.....	659,715	457,014	202,701	29,230	225,083	405,402
Maine.....	126,813	87,075	39,738	9,927	37,410	79,476
Maryland.....	387,675	287,101	100,574	21,609	164,918	201,148
Massachusetts.....	330,570	252,287	78,283	23,479	150,526	156,565
Michigan.....	1,463,996	1,041,305	422,691	111,493	507,120	845,383
Minnesota.....	329,049	224,219	104,830	22,332	96,957	209,760
Mississippi.....	396,187	289,229	106,958	29,271	152,999	213,917
Missouri.....	505,428	355,658	149,770	20,536	185,351	299,541
Montana.....	166,841	121,151	45,690	9,412	66,050	91,379
Nebraska.....	220,350	147,371	72,979	15,428	58,965	145,957
Nevada.....	24,247	19,197	5,050	1,061	13,086	10,100
New Hampshire.....	61,806	41,830	19,976	5,731	16,122	39,953
New Jersey.....	431,105	311,403	119,702	31,734	159,966	239,405
New Mexico.....	110,288	74,142	36,146	9,384	27,817	73,087
New York.....	1,591,625	1,134,880	456,745	106,245	570,857	914,523
North Carolina.....	875,894	544,132	331,762	37,716	174,543	663,635
North Dakota.....	139,283	90,309	48,974	11,706	29,630	97,947
Ohio.....	476,190	335,814	140,376	29,378	166,060	280,752
Oklahoma.....	621,727	432,235	189,492	30,498	212,245	378,984
Oregon.....	308,081	218,153	89,928	14,711	113,514	179,856
Pennsylvania.....	2,041,316	1,301,845	739,471	84,554	476,919	1,479,843
Rhode Island.....	101,814	70,969	30,845	8,582	31,542	61,690
South Carolina.....	641,900	432,284	209,616	41,940	180,728	419,232
South Dakota.....	80,535	52,573	27,962	5,719	18,893	55,923
Tennessee.....	712,984	474,890	238,094	40,049	196,748	476,187
Texas.....	1,127,734	755,758	371,976	49,057	334,725	743,952
Utah.....	159,826	114,877	44,949	9,142	60,786	89,898
Vermont.....	121,625	77,746	43,879	5,636	28,231	87,758
Virginia.....	566,190	385,139	181,051	28,840	175,248	362,102
Washington.....	552,937	401,317	151,620	41,320	208,377	303,240
West Virginia.....	645,120	447,534	197,586	32,154	217,538	395,428
Wisconsin.....	643,240	439,871	203,369	30,327	205,407	407,506
Wyoming.....	117,318	82,582	34,736	4,503	43,344	69,471
District of Columbia.....	264,252	179,252	85,000	26,748	97,945	139,559
Hawaii.....	178,392	114,267	64,125	9,027	41,114	128,251
Puerto Rico.....	321,300	211,040	110,260	25,289	75,489	220,522

¹ Based on reports from States, subject to audit.

Table 3.—Total expenditures from Federal and State funds for vocational rehabilitation of the blind by State commissions or agencies for the blind, fiscal year 1951¹

State or Territory	Federal and State funds			Classification of expenditures		
	Total	Federal	State	Adminis- tration	Vocational guidance and placement services	Purchased services
United States total	\$3,010,238	\$2,280,662	\$729,576	\$229,650	\$1,321,435	\$1,459,153
Colorado	38,385	28,420	9,965	2,030	16,424	19,931
Connecticut	30,602	25,627	4,975	1,855	18,797	9,950
Delaware	40,967	28,815	12,152	4,303	12,360	24,304
Florida	228,900	178,995	49,905	26,006	103,083	99,811
Idaho	20,837	15,932	4,905	1,434	9,593	9,810
Indiana	60,443	44,997	15,446	4,572	24,979	30,892
Iowa	24,765	17,911	6,854	1,334	9,722	13,709
Kansas	65,213	51,106	14,107	2,600	34,400	28,213
Louisiana	83,354	68,122	15,232	5,278	47,611	30,465
Maine	21,414	17,228	4,186	1,503	11,539	8,372
Michigan	137,752	111,261	26,491	15,742	69,027	52,983
Minnesota	93,696	65,786	27,910	3,437	34,440	55,819
Mississippi	113,477	93,462	20,015	8,866	64,582	40,029
Missouri	112,045	87,003	25,042	6,556	55,405	50,084
Montana	29,546	21,747	7,799	1,921	12,028	15,597
Nebraska	56,676	40,454	16,222	2,144	22,087	32,445
New Hampshire	16,658	14,308	2,350	1,054	10,903	4,701
New Jersey	101,071	83,518	17,553	5,585	60,380	35,106
New Mexico	16,765	12,713	4,052	1,899	6,763	8,103
New York	340,748	235,097	105,651	21,173	108,273	211,302
North Carolina	329,956	233,047	96,909	24,059	112,079	193,818
Ohio	151,334	120,733	30,601	12,324	77,807	61,203
Oregon	52,640	36,395	16,245	3,848	16,302	32,490
Pennsylvania	230,299	175,236	55,063	18,928	101,246	110,125
Rhode Island	34,832	28,491	6,341	3,919	18,230	12,683
South Carolina	28,515	24,310	4,205	1,992	18,113	8,410
South Dakota	22,200	16,560	5,640	1,985	8,934	11,281
Tennessee	152,008	117,492	34,516	10,696	72,281	69,031
Texas	188,846	148,765	40,081	19,698	88,986	80,162
Vermont	22,554	16,732	5,822	2,906	8,005	11,643
Virginia	42,013	27,816	14,197	2,917	10,702	28,394
Washington	43,100	33,048	10,052	2,839	20,157	20,104
Wisconsin	53,508	40,850	12,658	2,304	25,889	25,315
Hawaii	25,119	18,685	6,434	1,943	10,308	12,868

¹ Based on reports from States, subject to audit.

Table 4.—Total expenditures from Federal and State funds for vocational rehabilitation, fiscal years 1921–51

Year	Expenditures			Percent	
	Total	Federal funds	State and local funds	Federal funds	State and local funds
1921.....	\$284,684	\$93,336	\$191,348	32.8	67.2
1922.....	736,268	312,463	423,805	42.4	57.6
1923.....	1,188,081	525,281	662,800	44.2	55.8
1924.....	1,242,558	551,095	691,463	44.4	55.6
1925.....	1,187,219	519,553	667,666	43.8	56.2
1926.....	1,273,572	578,941	694,631	45.5	54.5
1927.....	1,406,757	631,376	775,381	44.9	55.1
1928.....	1,541,121	653,858	887,263	42.4	57.6
1929.....	1,490,180	664,739	825,441	44.6	55.4
1930.....	1,699,710	739,373	960,337	43.5	56.5
1931.....	2,042,710	932,718	1,109,992	45.7	54.3
1932.....	2,185,876	998,489	1,187,387	45.7	54.3
1933.....	2,176,080	998,589	1,177,491	45.9	54.1
1934.....	2,079,905	915,659	1,164,246	44.0	56.0
1935.....	2,247,948	1,031,818	1,216,130	45.9	54.1
1936.....	2,602,657	1,229,692	1,372,965	47.2	52.8
1937.....	3,319,096	1,513,441	1,805,655	45.6	54.4
1938.....	3,862,163	1,790,843	2,071,320	46.4	53.6
1939.....	3,991,664	1,832,964	2,158,700	45.9	54.1
1940.....	4,107,806	1,972,274	2,135,532	48.0	52.0
1941.....	4,711,138	2,281,941	2,429,197	48.4	51.6
1942.....	5,205,143	2,556,969	2,648,174	49.1	50.9
1943.....	5,629,923	2,761,748	2,868,175	49.1	50.9
1944.....	6,371,992	4,051,551	2,320,441	63.6	36.4
1945.....	9,855,544	7,135,441	2,720,103	72.4	27.6
1946.....	13,749,488	10,002,239	3,747,250	72.7	27.3
1947.....	19,313,344	14,188,933	5,124,411	73.5	26.5
1948.....	24,568,814	17,706,843	6,861,971	72.1	27.9
1949.....	25,818,839	18,215,683	7,603,156	70.6	29.4
1950.....	29,346,824	20,340,142	9,006,682	69.3	30.7
1951.....	30,272,854	21,001,388	9,271,466	69.4	30.6

¹ Prior to the Vocational Rehabilitation Act amendments of 1943, all expenditures from Federal funds had to be matched by State funds. Under the amendments of 1943 the Federal Government pays the entire cost of administration and vocational guidance and placement services and 50 percent of the cost of medical examinations, surgical, and therapeutic treatment, hospitalization, prosthetic appliances, transportation, occupational tools and licenses, vocational training, and maintenance.

Saint Elizabeths Hospital

Division of Medical Services

THE PROGRAM of psychiatric and general medical care and treatment of patients during the year carried out in the various branches of this Division follows.

CLINICAL BRANCHES

Responsibility for the care of each patient is assigned to the three Clinical Branches, each in charge of a Clinical Director, and the Medicine and Surgery Branch. All the other activities of the Hospital, such as the laboratory and dietetic service, are ancillary to these four branches. The problems mentioned in last year's report continue to grow, namely, the physical overcrowding of the patients and the shortage of professional and ward personnel. During the year there was a net gain of 97 patients or 1½ percent. No new patient space has been made available since 1944, although it is hoped that the new Geriatrics Building, which replaces the 550 beds of the semi-permanent buildings razed several years ago, will be ready by the fall of 1951. The Hospital is crowded by at least 13.7 percent, but certain of the services show much more serious crowding than this figure would indicate. It has become necessary to establish a waiting list for prisoners during the year, and it is not impossible that it may become necessary to delay admission of some of the civilian classes of patients during the coming year. The ratio of personnel to patients has been falling steadily in the last 5 years and is now at least 25 percent below the ratio considered by the American Psychiatric Association to be proper. The Korean conflict has added to the difficulties, both in the line of supply and of personnel. An additional

difficulty is that another Government agency is permitted to pay a salary premium of 25 percent to diplomates of specialty boards, whereas Saint Elizabeths is not. An eclectic approach in the line of treatment is being followed, and in spite of the difficulties the rate of discharges to admissions during the year increased to 65.72. The staff and employees of the Hospital deserve the greatest praise for their devotion to duty and their efficient care of patients. The sexual psychopaths, so called, continue to add somewhat to the crowding and certain changes in the law relating to their commitment appear to be in order.

MEDICINE AND SURGERY BRANCH

This Branch provides highly specialized care for the various physical illnesses of patients—medical and surgical. It provides the only rotating internship in a public mental hospital. It is also approved for 2 years of training in preparation for a surgical residency.

PSYCHOTHERAPY BRANCH

The psychodrama program has been prosecuted and extended to include certain activities in conjunction with the Social Service Branch aimed at the rehabilitation and resocialization of patients. Art and dance therapy activities are being carried on actively and fruitfully. The Psychology Section has been very active in testing, teaching, and research. During the year, 12 students were under instruction and 7 projects were completed by students in this section.

LABORATORY BRANCH

This Branch carries an increasingly heavy load of service to the Medical and Surgical and Clinical Branches. A number of research projects are under way, and a blood bank has been operated. The Hospital is still unable to locate a trained electroencephalographer who is available at the authorized salary.

NURSING BRANCH

There are 45 students in the School of Nursing. During the year, 18 were graduated and all passed the examinations of the Nurse Examining Board of the District of Columbia, 14 making a grade of 90 percent or better. No 3-year students were received during the year as it has become evident that the demands of the Nurse Examining Board are so great that it is impractical to continue the undergraduate training school. An active program of postgraduate and affiliate training is carried out, and 18 of the nurses of the staff have completed the course of training in civil defense.

OCCUPATIONAL THERAPY BRANCH

An active recreational program has been developed, supplementing the activities of the American Red Cross. Nine students were in training during the year.

SOCIAL SERVICE BRANCH

Service was provided for a total of 2,157 patients during the year, aiming particularly at their rehabilitation. Eleven students from Catholic University and Howard University were supervised for field experience. Two study projects were carried out by student workers.

CHAPLAIN BRANCH

The services to patients have been continued, and the program of this Branch is extremely active. Twenty-one theological students have been under training during the year, and 46 conferences and 120 seminars were held. The pressing need of the Branch is that of a new interdenominational chapel, as the present facilities are highly inadequate and hinder the efficiency of the services of the Branch.

LIBRARY SERVICES

The Medical Library has been valuable to the medical and nursing staff. There were 500 acquisitions during the year, and about 1,400 volumes were borrowed by members of the staff. The Army Medical Library and the Library of Congress have been most helpful and cooperative. The Patients' Library had over 1,100 acquisitions during the year and has now about 34,000 volumes. It has a very active program, not only circulating books and depositing books on the various wards, but book reviews are presented by patients under its auspices.

There is a growing interest in good literature among the patients.

AMERICAN RED CROSS

The Red Cross continues to be very active and helpful in spite of considerable retrenchment because of the fact that the Army and Navy patients are not now received at the Hospital. There is still a very active recreational program under way, and the aid of the Red Cross and of its volunteers is invaluable. The deepest thanks of the institution are extended to the Red Cross for their many helpful services.

TEACHING AND RESEARCH

Teaching is carried on in many fields. Interns are accepted, the term now having been changed to 1 year. The Hospital is approved

not only for intern training but for 3 years of residency training in psychiatry and 2 years of residency in surgery. Medical training is also carried on at the undergraduate level in connection with the three medical schools in Washington. Internships and residencies in psychology are offered. Dental internships are provided, and field work is provided in social service. Clinical training is also available for theological students and clergymen and is looked upon by the Hospital as an extremely valuable contribution to the community. During the year an exhibit on neuropathology was prepared for the annual meeting of the American Medical Association, and a number of papers have been read at medical meetings by members of the staff.

General Administration

Total employment remained substantially unchanged, but the turnover increased from 27 to 31 percent. Increasing difficulty is being experienced in recruiting ward personnel, particularly in the attendant group, both as to quality and as to number. Great difficulty is likewise experienced recently in the recruitment of medical personnel. The Dietary Section has been very effective in maintaining the caloric value and variety of foods in spite of rising costs, and the farm has been very helpful in providing fresh produce, such as eggs, poultry, and pork. The physical condition of the piggery is extremely unsatisfactory, and it is hoped that eventually this operation may be moved to the Godding Croft farm. An extended program of rewiring certain of the older buildings is under way. This will reduce fire hazards and at the same time will allow suitable lighting of the various ward and other buildings. Conversion to purchased electric current was completed in March. Unfortunately, the new warehouse, laundry, and shops building, which was expected to be occupied early in the current fiscal year, was subject to disturbances of drainage on the side hill on which it was located. An extensive program of drainage had to be completed before the building could be occupied, and as of the end of the year the process of moving into it has only just begun. The new Geriatrics Building is likewise being delayed in opening because of difficulty in obtaining certain essential supplies. The plans and specifications for the new receiving building have been nearly completed but are in a stage of quiescence on account of the demands of the defense situation.

Needs of the Hospital

The most pressing needs of the Hospital are additional space and personnel. As soon as it is consistent with the defense needs of the country the receiving building mentioned should be constructed.

Overcrowding is becoming more serious almost daily. A new maximum security facility is likewise necessary, and an interdenominational chapel is urgently needed. A cafeteria for Continued Treatment Buildings 7 and 8 is still needed, as well as additional boiler facilities and a new vault for patients' valuables.

Until further staffing is possible patients cannot be given the care which they need and deserve. Staffing difficulties are intensified by the Hospital's lack of authority to grant a 25-percent differential in pay to diplomates of specialty boards in line with such a differential granted by another Government agency under statutory authority.

Table 1.—Patients, admissions, and discharges, fiscal years 1935–51

Fiscal year	Average number of patients on rolls	Total number of admissions	Total number of patients discharged	Percent discharged in relation to admissions	Total number of deaths
1935	5,267	824	396	48.06	304
1936	5,373	925	552	59.68	298
1937	5,538	1,099	490	44.59	332
1938	5,836	1,029	461	44.80	267
1939	6,108	1,056	469	44.41	281
1940	6,395	1,202	619	51.50	322
1941	6,663	1,503	773	51.43	382
1942	6,994	1,797	1,534	84.36	371
1943	7,031	2,324	1,491	64.15	420
1944	7,161	2,599	2,056	79.11	441
1945	7,308	2,935	2,299	78.30	460
1946	7,044	1,909	2,477	129.75	396
1947	6,484	1,339	891	66.54	424
1948	6,621	1,420	856	60.28	431
1949	6,701	1,470	861	58.60	446
1950	6,897	1,648	960	58.25	495
1951	7,053	1,412	928	65.72	424

¹ 63.10 without transfer of 400.

Table 2.—Movement of patient population, fiscal year 1951

	Total	Male			Female		
		White	Colored	Total	White	Colored	Total
Total number under care and treatment, fiscal year 1951	8,430	2,874	1,575	4,449	2,485	1,496	3,981
Remaining on rolls, June 30, 1950	7,018	2,402	1,326	3,728	2,027	1,263	3,290
Admitted during year	1,412	472	249	721	458	233	691
Total discharged or died	1,352	503	262	765	419	168	587
Discharged	928	346	199	545	273	110	383
Discharged as—							
Not insane	71	44	24	68	1	2	3
Recovered	182	43	50	93	52	37	89
Social recovery	263	103	67	170	70	23	93
Improved	251	97	36	133	84	34	118
Unimproved	161	59	22	81	66	14	80
Died	424	157	63	220	146	58	204
Remaining on rolls, June 30, 1951	7,078	2,370	1,314	3,684	2,066	1,328	3,394
Change in color			+1				
On visit or elopement	282	57	35	92	121	69	190
In hospital	6,796	2,313	1,279	3,592	1,945	1,259	3,204

Table 3.—Consolidated statement of movement of patients, by classification, fiscal year 1951

	Total	Reimbursable patients						Nonreimbursable patients																			
		Subtotal	Bureau Indian Affairs	D. C. residents	D. C. voluntary	U. S. Soldiers' Home	Veterans' Administration	Subtotal	Army	Bureau Employees' Compensation	Immigration and Naturalization Service	Bureau National Homes	Canadian insane	Canal Zone	Coast Guard	D. C. nonresidents	Federal reservations	Foreign Service	Interned aliens	Marine Corps	Navy	D. C. prisoners	Military prisoners	Federal prisoners	Public Health Service	U. S. Soldiers' Home	Virgin Islands
On rolls, June 30, 1950.....	7,018	5,708	79	5,174	56	22	377	1,310	297	2	2	6	57	14	18	133	0	1	5	26	136	297	37	86	69	9	115
Admitted, to June 30, 1951.....	1,412	1,155	4	943	109	4	95	257	0	0	0	0	1	1	0	138	3	2	0	0	0	62	0	44	2	4	3
Separations, fiscal year 1951.....	1,352	1,055	8	775	88	6	178	297	9	0	0	1	0	0	0	176	2	0	0	2	8	46	1	26	11	6	9
Deaths.....	424	390	4	360	2	4	20	34	5	0	0	1	0	0	0	8	0	0	0	2	6	6	0	1	0	1	4
Discharges.....	928	665	4	415	86	2	158	263	4	0	0	0	0	0	0	168	2	0	0	0	2	40	1	25	11	5	5
On rolls, June 30, 1951.....	7,078	5,746	76	5,224	75	20	351	1,332	288	2	2	5	58	15	18	158	1	3	5	24	128	310	36	103	62	8	106
Changes in classification, fiscal year 1951.....		-62	+1	-118	-2		+57	+62								+63						-3		-1	+2	+1	
Adjusted on rolls, June 30, 1951.....	7,078	5,746	76	5,224	75	20	351	1,332	288	2	2	5	58	15	18	158	1	3	5	24	128	310	36	103	62	8	106
On visit or elopement, June 30, 1951.....	282	260	0	238	10	0	12	22	1	1	0	0	0	0	0	4	0	0	0	0	1	14	0	0	1	0	0
In hospital, June 30, 1951.....	6,796	5,486	76	4,986	65	20	339	1,310	287	1	2	5	58	15	18	154	1	3	5	24	127	296	36	103	61	8	106

American Printing House for the Blind

AS THE official schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Ky., is the extension of its services to the schools and classes for the blind through the Federal act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House to provide free school texts, tangible apparatus, and supplementary materials necessary in the education of the blind. Allocations of books and materials are made to the several schools on the basis of their enrollments. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20°."

The Printing House maintains large catalogs of Braille books, Talking Books, Braille music publications, large-type texts, and tangible apparatus. The schools for the blind are thereby provided with a rich collection of educational material from the kindergarten through high school. There are approximately 6,150 blind children enrolled in the residential and public school classes for the blind being served by the Printing House.

During the 1951 fiscal year, Braille books, educational periodicals, and music made up approximately 70 percent of the materials required by the schools; Braille slates, Braille writers, maps, and other mechanical devices about 12 percent; Talking Books about 4 percent; and large-type books about 12 percent. Approximately 2 percent was used for miscellaneous items.

Columbia Institution for the Deaf

THE Columbia Institution for the Deaf is devoted to the education of deaf persons whose hearing is so impaired that they are unable to progress satisfactorily in schools and colleges for hearing students. The Institution is located in Washington, D. C., and is composed of four departments: Kendall School, Gallaudet College, the Normal Department, and the Research Department. Its aim is to promote the welfare and advancement of deaf persons through various educational means and through research work.

KENDALL SCHOOL

This department provides education for the deaf child from pre-school age to college entrance. Its student body incorporates all deaf children from the District of Columbia and many from surrounding States. The oral method of instruction predominates, but when children cannot progress orally other methods may be used which will bring results. This past year the enrollment was 84, of whom 53 were from the District of Columbia.

GALLAUDET COLLEGE

This department was established in 1864 by act of Congress. A liberal arts and science course is offered students who qualify through entrance examinations. The requirements also provide a preparatory year for those who have not completed a full high-school course. This past year, students from 42 States, the District of Columbia, and Canada were admitted, with a total of 224 in the student body.,

The curriculum of the College is similar to that of any other American college which offers 4 years of work toward a bachelor's degree. Five areas of interest provide basic training in home economics, languages and literature, mathematics and science, the social sciences,

the graphic arts, library science, and training for a teaching career. Many of the graduates take up teaching positions in the various schools for the deaf and have been very successful in this field.

NORMAL DEPARTMENT

This department trains hearing young men and women, college graduates, to teach the deaf. The course is 9 months. Its purpose is to furnish teachers and administrators in the deaf educational field in the 48 States. At present the demand for this type of personnel cannot be met from available sources. This past year 10 persons were enrolled in this department, 6 of whom were men.

RESEARCH DEPARTMENT

This department was created to meet the demand of schools for the deaf in the United States for some central point where research work can be carried on for the advancement of the education of the deaf in the Nation. Its primary aim is to develop better techniques in the education of the deaf and hard-of-hearing child.

Howard University

LOCATED in the District of Columbia, Howard University operates an undergraduate college, a graduate school offering the master's degree, and eight professional schools, as follows: Medicine, dentistry, pharmacy, engineering and architecture, music, social work, law, and religion. (The School of Religion receives no support from Federal funds.)

TEACHING STAFF

The 5,187 students enrolled during the school year 1951 were served by 446 teachers, of whom 308 were full-time and 138 were part-time members of the staff. Together they constituted a full-time equivalent of 332.8 teachers. This group of 332.8 teachers represented a decrease of 17.6 below the full-time equivalent staff in 1950.

The staff has not yet recovered from the overburdening load incident to the heavy enrollment of veterans. It is still substantially below the number necessary for efficiency in three areas: (1) The preclinical branches of medicine; (2) the clinical branches of dentistry; (3) the college of liberal arts.

ENROLLMENT OF STUDENTS

During the school year 1950-51, Howard University served 5,187 students from 40 States, the District of Columbia, and 23 foreign countries, distributed among the schools and colleges as follows: Liberal arts, 2,813; graduate school, 481; engineering and architecture, 380; music, 321; social work, 130; medicine, 290; dentistry, 386; pharmacy, 217; law, 120; and religion, 49.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

An analysis of the 4,907 regular degree-seeking students shows that 4,591 or 93.6 percent came from the continental United States and 316 or 6.4 percent from foreign countries. The 4,591 from the continental United States were distributed as follows:

Total, continental United States.....	4, 591
New England States.....	96
Middle Atlantic States.....	763
East North Central States.....	260
West North Central States.....	101
South Atlantic States.....	2, 648
East South Central States.....	359
West South Central States.....	339
Mountain States.....	5
Pacific States.....	20
Foreign countries.....	316

GRADUATES

During the school year 1951 Howard University graduated 862 students and awarded three honorary degrees. These graduates were distributed among the schools and colleges as follows: Liberal arts, 453; the graduate school, 60; engineering and architecture, 66; music, 39; social work, 34; medicine, 66; dentistry, 38; dental hygiene, 9; pharmacy, 38; law, 37; and religion, 9. The graduating classes in engineering, music, and social work were the largest in the history of these schools.

The University has graduated altogether 16,306 students. These graduates are at work in 42 States and 24 foreign countries. In the 42 States they constitute a cross section of the leadership of the Negro people and are by far the largest and most diversified group of trained public servants related to any single institution in their field.

VETERANS

There were 1,563 veterans enrolled at Howard University throughout the year, from 34 States, the District of Columbia, Hawaii, Puerto Rico, and the Virgin Islands. They were distributed in the four quarters as follows: Autumn quarter, 1950, 1,306; winter quarter, 1951, 1,187; spring quarter, 1951, 1,148; summer session, 1951, 333. During the regular school year an average of 42 percent of all veterans enrolled were registered in the college of liberal arts; 13.3 percent in

engineering and architecture; 10 percent in medicine; 9.7 percent in dentistry; 7.8 percent in pharmacy; 5.2 percent in the graduate school; 5.7 percent in law; 2.8 percent in music; 2.4 percent in social work; and 1.1 percent in religion.

The total enrollment of veterans in 1950-51 (1,563) was 465 less than the enrollment of 2,028 in 1949-50.

At the June commencement there were 350 veteran graduates, distributed as follows: Liberal arts, 158; engineering and architecture, 52; school of music, 6; the graduate school, 20; medicine, 33; dentistry, 30; pharmacy, 25; law, 17; social work, 6; and religion, 3. Twenty-one of these veterans graduated with honors and six with very great honor.

ARMY AND AIR RESERVE OFFICERS' TRAINING CORPS

Military science and tactics.—Two hundred and six students were enrolled in the basic infantry ROTC course during the year, and 78 in the advanced courses, making a total average enrollment of 284 students.

In June 1951, 19 cadets received commissions in the Army. Two others completed their training and are thus eligible to receive their commissions upon completion of their 4 years of college work.

The majority of the ROTC graduates of 1950 are already serving as officers on extended active duty. This unit was inspected during the year and found to be "satisfactory."

Air Force ROTC.—A quarterly average of 323 students were enrolled in the Air Force Reserve Officers' Training Corps during the year. Of these an average of 208 were enrolled in the 2 basic courses, and an average of 115 in the 2 advanced courses. Twenty-nine students, completing their work, were commissioned as second lieutenants in the United States Air Force Reserves. Seven others completed their work and are eligible to receive commissions upon completion of their 4 years of college work.

The work of this unit was inspected during the year by the officers of the Air Corps and rated "satisfactory."

COMPLETION OF MASTER DEVELOPMENT PROGRAM

Under date of March 15, 1951, the Public Buildings Service of the General Services Administration completed the Master Development Program for Howard University, as authorized by an appropriation for the purpose by the Congress of the United States. The plan, identified as project No. 49-132, is set forth in a comprehensive report, with clear and copious illustrations and studies covering 32 single and double pages, 17 by 21 inches. The report examines the educational

background of the present buildings and facilities, analyzes these buildings and facilities, and appraises in detail their adequacies and inadequacies. It sets forth the new master educational program and appraises the existing buildings and facilities in the light of this program, recommending those which can be retained intact, those which can be retained after improvement, and those which must be displaced. It describes, in substantial detail, the new buildings and facilities which must be had, including steam distribution, water distribution, sanitary and storm sewers, gas distribution, power and lighting distribution, and telephone distribution. It studies all these facilities in relation to the site, recommends their arrangement as to the site, gives bird's-eye views of the site as developed, and recommends three stages of development in which each new facility should be provided, in order to secure the best coordinated development of the site.

The study has clearly involved a major amount of skillful and painstaking labor and will prove of very great value in the further development of the University.

If it could be quickly followed by a similar plan for the development of Freedmen's Hospital, a very helpful coordination of the development of these two institutions could follow for a period of 20 years. The present plans for doubling the number of medical students at Howard University require a clear and planned understanding of the extent to which Freedmen's Hospital will be further developed in support thereof.

PROGRESS IN THE BUILDING PROGRAM

The two women's dormitories are substantially complete. They will be ready for occupancy in September. They will complete the women's quadrangle, providing ample dining room facilities for the more than 500 students involved and for a very large number of the male students as well.

The engineering and architecture building is well under way. It will be completed and equipped for use, beginning at the autumn quarter of 1952.

The construction contract for the dental building has been let, and ground is about to be broken.

The Congress of the United States has greatly forwarded the coordination of the program for the preclinical medical buildings by making available for immediate use the full appropriation for the pharmacy building. This will enable the university to complete the dental and pharmacy buildings simultaneously and thus to clear the site for the earliest possible erection of the determinative pre-clinical building for the medical sciences.

EDUCATIONAL SURVEY OF MEDICINE

The Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association have completed a careful and detailed survey of the educational functioning of the college of medicine. They find many things to praise, but they point repeatedly to three areas of weakness which have been emphasized in our reports to the Administrator: (1) The dangerous deficiency in the number of teachers in the preclinical branches of medicine; (2) the inadequacy of the medical budget to provide (a) the required salary level for teachers and (b) the required availability of supplies and materials; and (3) the crippling effect of the inadequate Freedmen's Hospital space facilities for the work of the able clinical staff now assembled in the University.

SUBSTANTIAL INCREASE IN ORGANIZED RESEARCH

An outstandingly heartening aspect of the university life has been the steady growth of organized research. The expenditures for separately organized and budgeted research in the university increased from \$145,987 in 1949-50 to \$215,068 in 1950-51. The increase was effective in the graduate school, social work, medicine, and dentistry. The most significant increases appeared in medicine.

NEUROPSYCHIATRY APPROVED FOR RESIDENCY TRAINING

The division of neuropsychiatry in medicine has been approved by the American Medical Association for a 2-year residency training program in neurology. This increases the list of fully approved medical services in the University to 11. The University has turned over and renovated one of its housing properties for the use of this division. This relieves, for the time being, the seriously overcrowded conditions surrounding the work of this division in Freedmen's Hospital and gives the staff the most hopeful outlook for meeting patients and doing its work that it has had for many months.

DISTINGUISHED OPPORTUNITIES FOR TEACHING STAFF

Many and increasing opportunities for distinguished service in other universities and to the Nation at home and abroad are opening for the professors at Howard University. One of them, notably, has just returned from a year of work in India, where she was engaged in the organization of a major educational division devoted to the home sciences in the University of Baroda. Her services were so outstanding and helpful to India that the Minister of Health in the cabinet of the National Government at New Delhi has personally interceded for a continuance of her services for another year. Our own staff shortages, regretfully, will not permit it.

NEW AND OUTSTANDING STUDENT ORGANIZATIONS

A new and outstandingly able student organization has developed on the undergraduate campus—a debating society of Nation-wide activity and accomplishment. In 1951 this organization engaged in 64 debates—22 at home and 42 on the road, involving 41 major universities and colleges in the Nation. Of 44 debates, they won 29 and tied one. At the Annual Carnegie Tech Tarton Debate Tournament, Pittsburgh, May 1951, involving 18 colleges and universities, the Howard debators won first place honors in competition and were awarded the championship trophy.

Appendix Tables

Table 1.—Grants to States: Total grants under all Federal Security Agency programs, fiscal year 1951¹

States, Territories, and possessions	Total	Social Security Administra- tion ²	Public Health Service ²	Office of Education ²	Office of Vocational Rehabili- tation	American Printing House for the Blind
Total	\$1,430,821,134	\$1,213,822,058	\$152,059,141	\$48,687,689	\$16,127,246	\$125,000
Alabama	33,487,004	24,205,813	7,745,958	1,113,588	417,064	4,581
Arizona	9,104,914	7,620,239	993,821	432,940	57,132	782
Arkansas	28,166,573	22,762,295	3,957,543	1,219,214	225,133	2,388
California	147,800,257	137,626,096	4,403,684	4,405,374	1,358,285	6,818
Colorado	23,350,017	20,797,041	1,888,899	546,852	115,857	1,368
Connecticut	12,156,687	10,079,072	1,203,156	605,061	208,160	1,238
Delaware	1,751,169	1,017,664	380,009	234,039	119,457	-----
District of Columbia	3,832,528	2,887,722	677,047	97,564	3170,000	195
Florida	37,326,452	32,305,585	3,862,427	599,765	557,046	1,629
Georgia	39,899,576	30,748,260	6,144,930	2,252,563	750,284	3,539
Idaho	6,498,159	5,392,898	720,111	345,607	39,239	304
Illinois	55,799,834	49,221,396	3,465,615	2,169,757	937,138	5,928
Indiana	24,692,199	20,938,924	2,440,353	1,010,770	299,742	2,410
Iowa	23,241,788	19,660,003	2,642,007	744,891	192,433	2,454
Kansas	20,290,467	17,469,354	1,605,836	1,059,225	154,489	1,563
Kentucky	30,457,231	24,463,364	4,855,914	992,302	143,111	2,540
Louisiana	61,901,794	57,453,485	3,342,630	674,107	428,966	2,606
Maine	10,304,867	7,876,428	1,982,361	368,674	77,404	-----
Maryland	10,989,500	8,276,315	1,876,549	597,643	236,648	2,345
Massachusetts	56,809,556	50,682,855	5,181,156	798,542	141,792	5,211
Michigan	54,779,688	46,548,637	5,767,284	1,649,178	809,096	5,493
Minnesota	26,533,493	23,009,335	2,598,558	704,669	217,804	3,127
Mississippi	23,276,332	16,104,443	5,951,293	912,185	306,348	2,063
Missouri	58,043,476	52,875,372	3,776,529	1,064,676	323,968	2,931
Montana	7,274,472	6,266,637	649,069	253,969	104,298	1,499
Nebraska	11,857,053	10,104,968	1,051,349	555,448	144,246	1,042
Nevada	1,651,813	1,164,770	157,755	315,729	13,559	-----
New Hampshire	4,816,752	3,636,778	813,802	328,727	37,445	-----
New Jersey	16,216,419	12,273,298	2,830,350	790,505	319,313	2,953
New Mexico	7,831,149	6,423,442	818,618	522,597	64,994	1,498
New York	90,565,878	79,282,741	8,137,306	2,159,269	977,812	8,750
North Carolina	29,829,697	21,758,147	6,306,197	1,155,770	602,287	7,296
North Dakota	5,385,760	4,364,293	661,466	290,676	68,717	608
Ohio	54,091,511	46,452,947	5,254,828	2,036,780	340,312	6,644
Oklahoma	50,679,275	44,234,843	4,316,651	1,803,988	321,730	2,063
Oregon	13,355,732	11,116,896	1,639,192	402,258	195,584	1,802
Pennsylvania	63,552,640	53,117,900	7,397,275	1,962,361	1,066,093	9,011
Rhode Island	6,122,989	4,941,276	766,180	340,721	74,812	-----
South Carolina	17,208,407	12,533,369	3,616,309	693,609	363,470	1,650
South Dakota	6,292,555	5,299,318	603,062	338,932	50,483	760
Tennessee	34,205,371	28,654,838	4,147,854	938,524	461,463	2,692
Texas	84,445,018	71,128,179	9,699,876	2,935,654	677,726	3,583
Utah	7,618,594	5,870,804	1,243,994	428,561	74,497	738
Vermont	3,411,388	2,515,745	580,692	243,248	71,703	-----
Virginia	16,247,151	9,688,425	4,522,427	1,709,527	323,320	3,452
Washington	37,862,924	34,885,895	1,295,175	1,328,697	351,637	1,520
West Virginia	18,239,037	15,989,583	1,361,454	538,063	348,070	1,867
Wisconsin	26,100,637	22,346,051	2,596,550	778,412	376,410	3,214
Wyoming	2,898,873	2,238,240	323,071	282,624	54,938	-----
Alaska	2,253,768	1,166,236	941,218	146,314	-----	-----
Hawaii	4,187,212	3,315,068	530,696	246,783	94,383	282
Puerto Rico	5,762,490	2,791,905	2,240,438	527,236	201,348	1,563
Virgin Islands	363,008	236,870	92,617	33,521	-----	-----

¹ On a checks-cashed basis.² For detailed figures by programs, see tables 2, 3, and 4.³ Excludes \$85,000 transferred from the District of Columbia.

Table 2.—Grants to States: Social Security Administration, fiscal year 1951

States, Territories, and possessions	Total	Old-age assistance	Aid to dependent children	Aid to the blind	Aid to the permanently and totally disabled	Maternal and child health services	Services for crippled children	Child welfare services
Total.....	\$1,213,822,058	\$825,635,533	\$316,476,899	\$26,195,025	\$17,456,461	\$12,854,314	\$9,665,812	\$5,538,010
Alabama.....	24,205,813	15,603,317	5,836,530	320,240	1,436,396	490,201	324,674	191,455
Arizona.....	7,620,239	4,656,830	2,460,495	304,147	-----	152,896	-----	45,871
Arkansas.....	22,762,295	14,605,317	6,856,304	522,234	-----	296,895	307,544	174,001
California.....	137,626,096	100,501,006	32,355,782	4,013,956	-----	391,848	232,916	130,588
Colorado.....	20,797,041	17,277,626	3,025,185	135,501	-----	214,033	77,025	67,671
Connecticut.....	10,079,072	6,726,544	2,879,763	100,371	-----	117,096	178,814	76,484
Delaware.....	1,017,664	394,881	384,176	72,758	24,042	72,631	37,592	31,584
District of Columbia.....	2,887,722	923,669	1,359,153	87,137	156,053	169,429	168,018	24,263
Florida.....	32,305,585	19,480,849	11,343,759	1,009,290	-----	251,869	136,389	83,429
Georgia.....	30,748,260	21,842,609	7,305,911	685,329	-----	519,335	269,855	125,221
Idaho.....	5,392,898	3,596,379	1,405,795	68,341	118,409	93,316	83,269	27,389
Illinois.....	49,221,396	34,355,520	12,680,129	1,314,974	118,350	315,827	239,737	186,859
Indiana.....	20,938,924	14,019,352	5,798,424	583,944	-----	298,069	177,519	61,616
Iowa.....	19,660,003	15,920,834	2,893,236	444,614	-----	128,128	190,436	82,755
Kansas.....	17,469,354	13,230,799	2,814,979	227,247	805,164	144,977	106,588	139,600
Kentucky.....	24,463,364	14,082,699	8,867,999	555,014	-----	412,483	323,267	221,902
Louisiana.....	57,453,485	41,082,741	11,638,123	574,070	3,438,890	364,254	222,767	132,640
Maine.....	7,876,428	4,960,099	2,436,675	228,640	-----	108,913	95,714	46,387
Maryland.....	8,276,315	3,466,962	3,716,527	154,834	299,086	317,052	254,896	66,958
Massachusetts.....	50,682,855	40,897,205	8,768,360	536,044	-----	228,189	211,825	41,232
Michigan.....	46,548,637	31,407,534	13,452,609	631,699	223,000	391,277	264,276	178,242
Minnesota.....	23,009,335	17,565,069	4,525,632	401,548	-----	231,556	190,357	95,173
Mississippi.....	16,104,443	11,987,321	2,669,608	660,903	45,404	337,928	251,403	151,876
Missouri.....	52,875,372	39,902,933	10,587,945	-----	1,667,735	274,730	272,258	169,771
Montana.....	6,266,637	4,143,021	1,362,741	214,318	297,439	101,119	86,070	61,929
Nebraska.....	10,104,968	7,651,420	1,924,305	265,474	-----	102,897	88,568	72,304
Nevada.....	1,164,770	1,039,620	-----	-----	-----	66,997	30,804	27,349
New Hampshire.....	3,636,778	2,414,424	933,058	105,628	-----	73,486	62,224	47,958
New Jersey.....	12,273,298	8,288,489	3,197,228	318,128	-----	205,629	203,508	60,316
New Mexico.....	6,423,442	3,084,886	2,674,888	157,786	226,523	153,794	80,722	45,043
New York.....	79,282,741	40,353,288	31,285,250	1,501,485	5,240,500	433,160	305,140	163,918
North Carolina.....	21,758,147	12,499,699	6,474,164	1,251,915	407,433	572,492	337,705	214,739
North Dakota.....	4,364,293	2,903,606	1,100,128	42,211	100,518	93,724	79,028	45,078
Ohio.....	46,452,947	35,999,204	7,997,691	1,242,256	359,207	422,604	258,921	173,064
Oklahoma.....	44,234,843	32,049,823	10,722,153	892,480	-----	178,991	235,061	156,335

Oregon	11, 116, 896	7, 976, 216	2, 299, 933	142, 541	418, 415	121, 153	92, 488	66, 150
Pennsylvania	53, 117, 900	24, 949, 317	25, 632, 542	1, 572, 000		507, 567	298, 546	157, 928
Rhode Island	4, 941, 276	2, 859, 797	1, 788, 124	56, 313		94, 597	108, 512	33, 933
South Carolina	12, 533, 369	8, 876, 476	2, 034, 174	365, 505	477, 800	301, 331	284, 299	193, 783
South Dakota	5, 299, 318	3, 697, 778	1, 319, 496	68, 021		57, 977	82, 165	73, 881
Tennessee	28, 654, 838	16, 434, 568	10, 513, 994	791, 956		482, 037	286, 866	145, 417
Texas	71, 128, 179	59, 522, 547	8, 445, 712	1, 842, 674		594, 083	455, 224	267, 939
Utah	5, 870, 804	3, 217, 896	1, 880, 494	72, 614	432, 940	116, 155	109, 944	40, 761
Vermont	2, 515, 745	1, 779, 577	449, 429	51, 580	26, 500	80, 601	77, 205	50, 853
Virginia	9, 688, 425	4, 201, 514	3, 870, 587	404, 214	438, 651	369, 977	257, 264	146, 218
Washington	34, 885, 895	27, 173, 845	6, 966, 134	324, 415		204, 928	159, 956	56, 617
West Virginia	15, 989, 583	6, 153, 433	8, 810, 745	279, 584	94, 880	256, 036	215, 297	179, 608
Wisconsin	22, 346, 051	16, 019, 325	4, 985, 734	491, 961	290, 383	162, 881	218, 664	177, 103
Wyoming	2, 238, 240	1, 581, 388	382, 319	37, 549	107, 321	53, 688	33, 477	42, 498
Alaska	1, 166, 236	560, 570	342, 313			113, 854	118, 228	31, 271
Hawaii	3, 315, 068	650, 214	2, 169, 271	36, 059	124, 811	137, 130	158, 176	39, 407
Puerto Rico	2, 791, 905	1, 017, 827	837, 434	30, 343	78, 886	396, 523	254, 143	176, 749
Virgin Islands	236, 870	34, 873	13, 759	3, 180	1, 725	75, 971	70, 468	36, 894

Table 3.—Grants to States: Public Health Service, fiscal year 1951

States, Territories, and possessions	Total	Venereal disease control	Tuberculosis control	General health
Total.....	\$152,059,141	¹ \$9,301,492	\$6,350,000	\$14,234,085
Alabama.....	7,745,958	365,263	144,406	389,000
Arizona.....	993,821	51,335	54,450	96,455
Arkansas.....	3,957,543	158,181	104,839	288,351
California.....	4,403,684	220,435	309,972	669,589
Colorado.....	1,888,899	42,678	58,600	126,736
Connecticut.....	1,203,156	30,447	96,204	132,600
Delaware.....	380,009	20,672	26,150	22,136
District of Columbia.....	677,047	124,406	57,371	58,370
Florida.....	3,862,427	437,231	149,700	239,094
Georgia.....	6,144,930	1,035,195	208,807	390,078
Idaho.....	720,111	29,906	19,745	82,825
Illinois.....	3,465,615	428,100	297,950	559,778
Indiana.....	2,440,353	101,635	133,585	324,489
Iowa.....	2,642,007	56,430	58,917	227,238
Kansas.....	1,605,836	48,143	87,165	191,648
Kentucky.....	4,855,914	343,975	177,699	377,731
Louisiana.....	3,342,630	481,004	128,686	315,027
Maine.....	1,982,361	21,636	33,592	90,385
Maryland.....	1,876,549	176,257	139,990	161,175
Massachusetts.....	5,181,156	54,860	219,170	343,694
Michigan.....	5,767,284	160,164	228,234	479,544
Minnesota.....	2,598,558	50,139	91,869	283,561
Mississippi.....	5,951,293	605,969	157,889	360,130
Missouri.....	3,776,529	209,682	140,240	360,912
Montana.....	649,069	18,776	24,553	65,962
Nebraska.....	1,051,349	40,367	40,669	105,703
Nevada.....	157,755	19,425	11,147	40,380
New Hampshire.....	813,802	10,674	17,009	54,949
New Jersey.....	2,830,350	112,053	147,189	325,816
New Mexico.....	818,618	117,795	44,061	91,958
New York.....	8,137,306	255,260	448,374	866,339
North Carolina.....	6,306,197	470,470	202,159	484,684
North Dakota.....	661,466	24,220	49,303	76,291
Ohio.....	5,254,828	362,383	278,792	591,976
Oklahoma.....	4,316,651	169,130	109,873	272,853
Oregon.....	1,639,192	42,126	64,583	163,549
Pennsylvania.....	7,397,275	290,449	294,210	768,725
Rhode Island.....	766,180	16,397	37,673	52,948
South Carolina.....	3,616,309	366,510	150,799	282,346
South Dakota.....	603,062	21,151	28,007	65,881
Tennessee.....	4,147,854	200,619	173,161	368,489
Texas.....	9,699,876	721,605	187,046	686,682
Utah.....	1,243,994	22,590	23,749	91,355
Vermont.....	580,692	6,588	21,157	37,058
Virginia.....	4,522,427	214,748	202,568	313,727
Washington.....	1,295,175	47,126	88,695	190,612
West Virginia.....	1,361,454	158,593	89,920	215,146
Wisconsin.....	2,596,550	39,880	109,686	255,612
Wyoming.....	323,071	14,666	12,335	47,405
Alaska.....	941,218	18,136	89,026	⁴ 746,056
Hawaii.....	530,696	20,387	64,146	53,846
Puerto Rico.....	2,240,438	215,703	202,092	340,203
Virgin Islands.....	92,617	29,922	12,788	6,988

Footnotes at end of table.

Table 3.—Grants to States: Public Health Service, fiscal year 1951—Continued

States, Territories, and possessions	Mental health activities	Heart disease activities	Cancer activities	Industrial waste studies	Hospital construction, survey, and planning
Total.....	\$3, 074, 429	\$2, 518, 055	\$7, 509, 926	² \$866, 853	³ \$108, 204, 301
Alabama.....	71, 610	54, 540	77, 204	19, 500	6, 624, 435
Arizona.....	13, 274	3, 524	12, 597	10, 100	752, 086
Arkansas.....	41, 459	15, 707	52, 692	16, 400	3, 279, 914
California.....	192, 523	207, 913	294, 002	28, 400	2, 480, 850
Colorado.....	26, 257	32, 909	286, 445	11, 000	1, 304, 274
Connecticut.....	38, 329	26, 624	40, 793	12, 000	826, 159
Delaware.....	21, 335	9, 253	6, 376	8, 600	265, 487
District of Columbia.....	21, 763	17, 576	16, 381	9, 800	371, 380
Florida.....	56, 221	35, 141	55, 221	14, 900	2, 874, 919
Georgia.....	81, 331	88, 509	129, 523	19, 600	4, 191, 887
Idaho.....	22, 374	17, 463	19, 672	9, 600	518, 526
Illinois.....	103, 711	46, 286	460, 227	25, 100	1, 544, 463
Indiana.....	87, 134	43, 212	82, 443	18, 100	1, 649, 755
Iowa.....	53, 178	12, 459	66, 816	15, 100	2, 151, 869
Kansas.....	43, 966	91, 059	168, 811	13, 100	961, 944
Kentucky.....	65, 089	50, 308	79, 797	19, 300	3, 742, 015
Louisiana.....	55, 881	11, 050	60, 480	17, 300	2, 273, 202
Maine.....	14, 345	11, 310	22, 134	10, 500	1, 778, 459
Maryland.....	45, 102	130, 658	288, 039	12, 800	922, 528
Massachusetts.....	94, 820	431, 824	1, 160, 683	31, 000	2, 845, 105
Michigan.....	126, 991	60, 350	116, 543	22, 400	4, 573, 058
Minnesota.....	60, 604	36, 601	202, 137	20, 200	1, 853, 447
Mississippi.....	50, 423	28, 321	69, 961	17, 028	4, 661, 572
Missouri.....	59, 547	44, 784	552, 034	18, 685	2, 390, 645
Montana.....	22, 374	8, 890	14, 919	9, 100	484, 495
Nebraska.....	23, 567	7, 630	22, 964	11, 300	799, 149
Nevada.....	13, 133	8, 308	8, 986	8, 300	48, 076
New Hampshire.....	19, 859	3, 675	-----	9, 500	698, 136
New Jersey.....	98, 335	44, 884	86, 886	18, 000	1, 997, 187
New Mexico.....	19, 028	18, 214	19, 743	9, 900	497, 919
New York.....	258, 921	74, 471	421, 006	34, 800	5, 778, 135
North Carolina.....	42, 500	74, 848	319, 815	22, 600	4, 689, 121
North Dakota.....	22, 373	16, 964	19, 413	9, 400	443, 502
Ohio.....	165, 423	71, 888	183, 758	36, 940	3, 563, 668
Oklahoma.....	55, 994	102, 250	180, 707	16, 000	3, 409, 844
Oregon.....	35, 428	2, 000	26, 789	12, 100	1, 292, 617
Pennsylvania.....	154, 658	75, 000	244, 464	33, 700	5, 536, 069
Rhode Island.....	22, 330	4, 000	12, 240	9, 700	610, 892
South Carolina.....	52, 320	42, 535	54, 624	16, 300	2, 650, 875
South Dakota.....	13, 100	6, 209	16, 016	9, 500	443, 198
Tennessee.....	71, 441	50, 487	237, 877	19, 400	3, 026, 380
Texas.....	155, 436	27, 031	345, 079	43, 900	7, 533, 097
Utah.....	22, 374	205, 152	204, 557	9, 900	664, 317
Vermont.....	12, 817	-----	11, 959	9, 100	452, 013
Virginia.....	73, 500	18, 158	50, 954	17, 300	3, 631, 472
Washington.....	50, 743	30, 900	58, 665	23, 400	805, 034
West Virginia.....	45, 364	20, 608	36, 695	14, 300	780, 828
Wisconsin.....	63, 158	40, 860	527, 336	16, 200	1, 543, 818
Wyoming.....	2, 725	-----	8, 930	8, 700	228, 310
Alaska.....	13, 619	12, 053	6, 847	8, 700	46, 781
Hawaii.....	22, 371	16, 910	11, 657	9, 400	331, 979
Puerto Rico.....	52, 019	23, 381	54, 494	18, 900	1, 333, 646
Virgin Islands.....	22, 252	3, 368	1, 535	-----	15, 764

¹ Includes \$3,165,817 in cash, supplies, and services for rapid treatment facility operations and \$647,155 in cash, supplies, and services for venereal disease projects.

² Excludes \$88,908 paid to interstate agencies.

³ Comprises \$108,096,418 for hospital construction and \$107,883 for hospital survey and planning.

⁴ Includes \$694,000 for Disease and Sanitation Investigations and Control, Alaska.

Table 4.—Grants to States: Office of Education, fiscal year 1951

States, Territories, and possessions	Total	Colleges for agriculture and the mechanic arts	Cooperative vocational education	Survey and school construction	Maintenance and operation of schools
Total.....	\$48,687,689	\$5,030,000	\$26,652,239	\$3,233,711	\$13,771,739
Alabama.....	1,113,588	102,333	723,562	33,919	253,774
Arizona.....	432,940	75,698	171,685	104,169	81,388
Arkansas.....	1,219,214	92,248	542,950	10,907	573,109
California.....	4,405,374	148,834	1,077,490	265,925	2,913,125
Colorado.....	546,852	82,820	221,006	35,850	207,176
Connecticut.....	605,061	89,508	262,000	3,180	250,373
Delaware.....	234,039	73,042	160,997	-----	-----
District of Columbia.....	97,564	-----	97,564	-----	-----
Florida.....	599,765	91,655	345,039	7,500	155,571
Georgia.....	2,252,563	105,651	767,189	125,122	1,254,601
Idaho.....	345,607	75,990	162,063	-----	107,554
Illinois.....	2,169,757	160,131	1,243,166	233,816	532,644
Indiana.....	1,010,770	109,121	664,392	214,410	22,847
Iowa.....	744,891	98,969	571,666	32,916	41,340
Kansas.....	1,059,225	90,555	400,645	17,273	550,752
Kentucky.....	992,302	102,477	708,706	10,000	171,119
Louisiana.....	674,107	96,979	535,650	41,478	-----
Maine.....	368,674	79,669	167,050	771	121,184
Maryland.....	597,643	90,786	307,452	116,304	83,101
Massachusetts.....	798,542	119,267	555,641	-----	123,634
Michigan.....	1,649,178	129,988	903,472	264,349	351,369
Minnesota.....	704,669	101,868	594,783	-----	8,018
Mississippi.....	912,185	94,924	637,571	14,695	164,995
Missouri.....	1,064,676	113,194	780,773	34,270	136,439
Montana.....	253,969	76,385	173,051	291	4,242
Nebraska.....	555,448	85,018	304,890	72,192	93,348
Nevada.....	315,729	71,258	92,945	82,427	69,099
New Hampshire.....	328,727	75,610	153,599	550	98,968
New Jersey.....	790,505	117,480	560,561	29,975	82,489
New Mexico.....	522,597	76,070	170,807	98,660	177,060
New York.....	2,159,269	223,837	1,848,929	26,484	60,019
North Carolina.....	1,155,770	110,763	917,575	65,699	61,733
North Dakota.....	290,676	77,326	209,114	3,440	796
Ohio.....	2,036,780	148,836	1,171,401	213,704	502,839
Oklahoma.....	1,803,988	96,666	551,805	406,809	748,708
Oregon.....	402,258	82,437	216,324	3,000	100,497
Pennsylvania.....	1,962,361	182,990	1,581,509	56,685	141,177
Rhode Island.....	340,721	78,141	112,871	-----	149,709
South Carolina.....	693,609	91,682	498,568	9,600	93,759
South Dakota.....	338,932	77,338	199,481	2,475	59,638
Tennessee.....	938,524	103,278	713,468	10,640	111,138
Texas.....	2,935,654	143,212	1,403,888	322,668	1,065,886
Utah.....	428,561	76,281	170,255	-----	182,025
Vermont.....	243,248	74,100	158,396	1,524	9,228
Virginia.....	1,709,527	100,561	625,977	36,401	946,588
Washington.....	1,328,697	89,815	328,698	176,932	733,252
West Virginia.....	538,063	91,707	432,753	13,603	-----
Wisconsin.....	778,412	105,809	634,126	-----	38,477
Wyoming.....	282,624	72,862	165,000	-----	44,762
Alaska.....	146,314	50,000	-----	4,125	92,189
Hawaii.....	246,783	74,831	165,000	-----	-----
Puerto Rico.....	527,236	50,000	455,736	21,500	-----
Virgin Islands.....	33,521	-----	33,000	521	-----

Detailed Contents

A listing, for each section of the report, of
topic headings and table and chart titles

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